```
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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  MAR 15  WPIDS/WPIX enhanced with new FRAGHITSTR display format
 NEWS  3  MAR 16  CASREACT coverage extended
 NEWS  4  MAR 20  MARPAT now updated daily
 NEWS  5  MAR 22  LWPI reloaded
 NEWS  6  MAR 30  RDISCLOSURE reloaded with enhancements
 NEWS  7  APR 02  JICST-EPLUS removed from database clusters and STN
 NEWS  8  APR 30  GENBANK reloaded and enhanced with Genome Project ID field
 NEWS  9  APR 30  CHEMCATS enhanced with 1.2 million new records
 NEWS 10  APR 30  CA/CAplus enhanced with 1870-1889 U.S. patent records
 NEWS 11  APR 30  INPADOC replaced by INPADOCDB on STN
 NEWS 12  MAY 01  New CAS web site launched
 NEWS 13  MAY 08  CA/CAplus Indian patent publication number format defined
 NEWS 14  MAY 14  RDISCLOSURE on STN Easy enhanced with new search and display
                  fields
 NEWS 15  MAY 21  BIOSIS reloaded and enhanced with archival data
 NEWS 16  MAY 21  TOXCENTER enhanced with BIOSIS reload
 NEWS 17  MAY 21  CA/CAplus enhanced with additional kind codes for German
                  patents
 NEWS 18  MAY 22  CA/CAplus enhanced with IPC reclassification in Japanese
                  patents
 NEWS 19  JUN 27  CA/CAplus enhanced with pre-1967 CAS Registry Numbers
 NEWS 20  JUN 29  STN Viewer now available
 NEWS 21  JUN 29  STN Express, Version 8.2, now available
 NEWS 22  JUL 02  LEMBASE coverage updated
 NEWS 23  JUL 02  LMEDLINE coverage updated
 NEWS 24  JUL 02  SCISEARCH enhanced with complete author names
 NEWS 25  JUL 02  CHEMCATS accession numbers revised
 NEWS 26  JUL 02  CA/CAplus enhanced with utility model patents from China
 NEWS 27  JUL 16  CAplus enhanced with French and German abstracts
 NEWS 28  JUL 18  CA/CAplus patent coverage enhanced
 NEWS 29  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification

 NEWS EXPRESS  29 JUNE 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.
```

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:32:39 ON 26 JUL 2007

=>
=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:32:48 ON 26 JUL 2007
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8
DICTIONARY FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

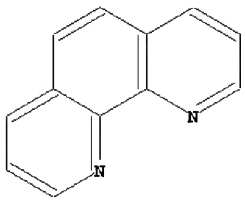
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

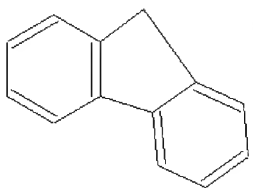
Please note that search-term pricing does apply when conducting SmartSELECT searches.

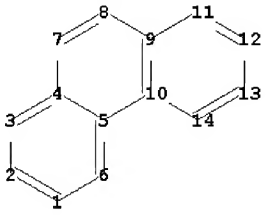
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

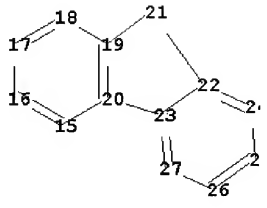
http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10527192.str









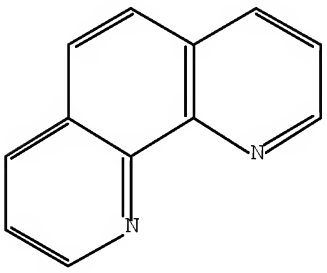
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ring bonds :

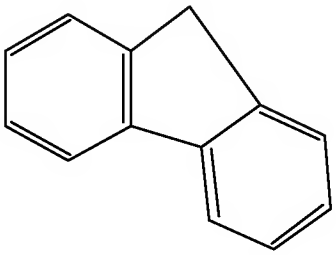
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24
23-27 24-25 25-26 26-27
exact/norm bonds :
19-21 20-23 21-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 22-23 22-24 23-27 24-25 25-26
26-27

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
26:CLASS 27:CLASS

L1   STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1   STR





Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 14:33:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   796 TO ITERATE

100.0% PROCESSED   796 ITERATIONS   7 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 14228 TO   17612
PROJECTED ANSWERS: 7 TO   298

```
L2             7 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 14:33:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    15492 TO ITERATE

100.0% PROCESSED    15492 ITERATIONS                          157 ANSWERS
SEARCH TIME: 00.00.01

L3          157 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               172.10     172.31

FILE 'CAPLUS' ENTERED AT 14:33:21 ON 26 JUL 2007
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FILE COVERS 1907 - 26 Jul 2007  VOL 147 ISS 5
FILE LAST UPDATED: 25 Jul 2007  (20070725/ED)

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They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l3
L4          69 L3

=> d abs bib hitstr 1-2

L4   ANSWER 1 OF 69  CAPLUS  COPYRIGHT 2007 ACS on STN
AB    The subject matter disclosed herein generally relates to org. light-emitting
      materials A-(L-Og)p ( A = a hole-conducting core, an electron-conducting core,
      or a non-conducting core; L = an aliphatic linker; Og = a conjugated oligomer;
      p = 1-10) and methods for their preparation and use.  Also, devices involve
      organic light emitting materials are disclosed.
AN   2007:534830  CAPLUS Full-text
DN   146:531624
TI   Light-emitting organic materials
IN   Chen, Shaw H.; Chen, Andrew Chien-An; Wallace, Jason U.; Zeng, Lichang
PA   USA
SO   U.S. Pat. Appl. Publ., 90pp.
     CODEN: USXXCO
DT   Patent
LA   English
```

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007111027	A1	20070517	US 2006-494854	20060728
PRAI	US 2005-703908P	P	20050729		

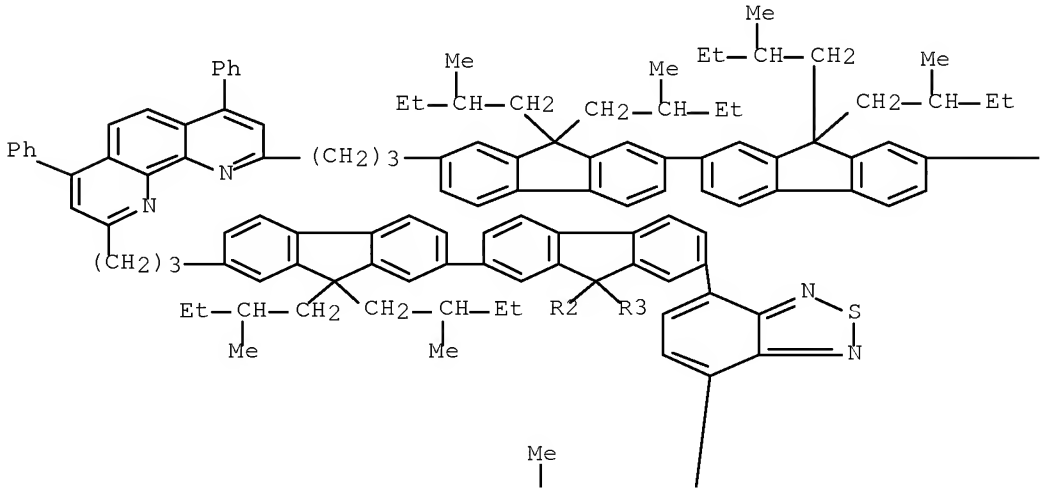
IT 937009-36-4P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use of light-emitting organic materials)

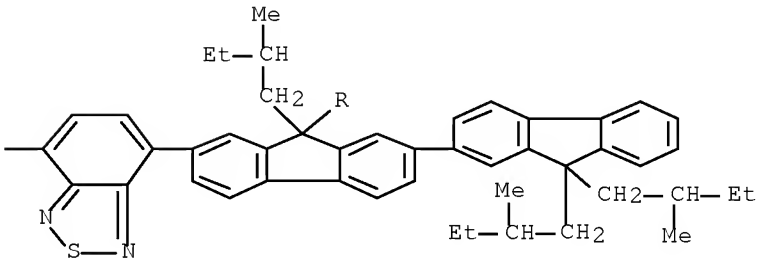
RN 937009-36-4 CAPLUS

CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis[3-[9,9,9',9'-tetrakis(2-methylbutyl)-7'-[7-[9,9,9',9'-tetrakis(2-methylbutyl)[2,2'-bi-9H-fluoren]-7-yl]-2,1,3-benzothiadiazol-4-yl][2,2'-bi-9H-fluoren]-7-yl]propyl]- (CA INDEX NAME)

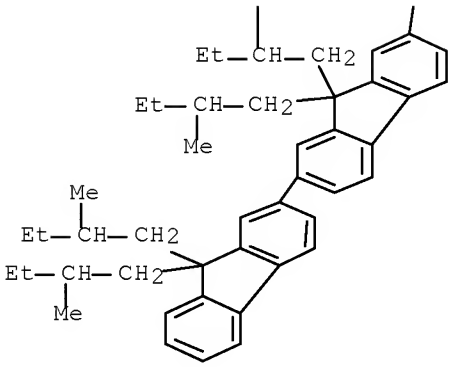
PAGE 1-A



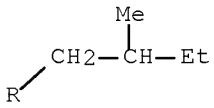
PAGE 1-B

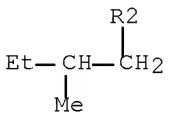


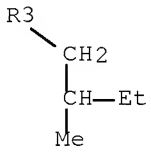
PAGE 2-A



PAGE 3-A







L4 ANSWER 2 OF 69 CAPLUS COPYRIGHT 2007 ACS on STN

AB The invention relates to an org. light-emitting device, comprising a 1st active layer and a 2nd active layer fabricated between an anode and a cathode, wherein the HOMO (LUMO) energy level of the main compound in the 1st active layer is greater than that of the main compound in the 2nd active layer located at the cathode side and the recombination region spreads in the both active layers, centering the boundary between the 1st and the 2nd active layer.

AN 2007:409195 CAPLUS Full-text
DN 146:411169

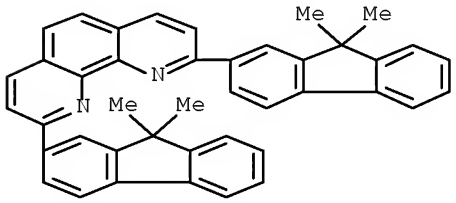
TI Organic light-emitting device

IN Okinaka, Keiji; Saito, Akito; Yamada, Naoki
PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 22pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 2007096023 A 20070412 JP 2005-283895 20050929
PRAI JP 2005-283895 20050929
IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron transport layer; organic light-emitting device)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	11.48	183.79

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.56	-1.56

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:34:23 ON 26 JUL 2007

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NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 JUL 02 LMEDLINE coverage updated
NEWS 3 JUL 02 SCISEARCH enhanced with complete author names
NEWS 4 JUL 02 CHEMCATS accession numbers revised
NEWS 5 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 6 JUL 16 CAplus enhanced with French and German abstracts
NEWS 7 JUL 18 CA/CAplus patent coverage enhanced
NEWS 8 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9 JUL 30 USGENE now available on STN
NEWS 10 AUG 06 CAS REGISTRY enhanced with new experimental property tags

```
 NEWS 11  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS 12  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS 13  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 14  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS 15  AUG 27  USPATOLD now available on STN
 NEWS 16  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
 NEWS 17  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                  World Patents Index
 NEWS 18  SEP 13  FORIS renamed to SOFIS
 NEWS 19  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 20  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 21  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 22  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 23  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS 24  OCT 19  BEILSTEIN updated with new compounds
 NEWS 25  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS 26  NOV 19  WPIX enhanced with XML display format
 NEWS 27  NOV 30  ICSD reloaded with enhancements

 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:13:53 ON 30 NOV 2007

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> file caplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.21       0.21
```

FILE 'CAPLUS' ENTERED AT 12:14:27 ON 30 NOV 2007
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FILE COVERS 1907 - 30 Nov 2007 VOL 147 ISS 24
FILE LAST UPDATED: 29 Nov 2007 (20071129/ED)

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=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.47	0.68

FILE 'REGISTRY' ENTERED AT 12:14:34 ON 30 NOV 2007
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STRUCTURE FILE UPDATES: 29 NOV 2007 HIGHEST RN 956314-53-7
DICTIONARY FILE UPDATES: 29 NOV 2007 HIGHEST RN 956314-53-7

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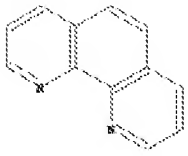
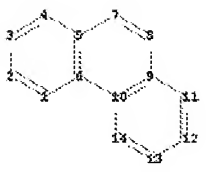
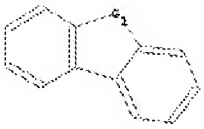
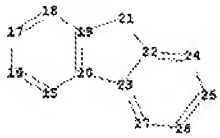
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10527192.str

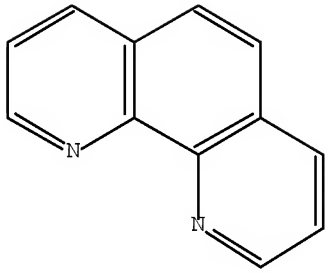
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24
23-27 24-25 25-26 26-27
exact/norm bonds :
19-21 20-23 21-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 9-11 10-14 11-12 12-13
13-14 15-16 15-20 16-17 17-18 18-19 19-20 22-23 22-24 23-27 24-25 25-26
26-27

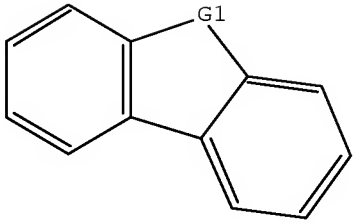
G1:C,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
26:CLASS 27:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR





G1 C,N

Structure attributes must be viewed using STN Express query preparation.

```
=> s l1
SAMPLE SEARCH INITIATED 12:15:06 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     1553 TO ITERATE

100.0% PROCESSED     1553 ITERATIONS                              11 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        28696 TO    33424
PROJECTED ANSWERS:              22 TO      418

L2           11 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 12:15:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    31027 TO ITERATE

100.0% PROCESSED    31027 ITERATIONS                             243 ANSWERS
SEARCH TIME: 00.00.01

L3          243 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                 172.10     172.78

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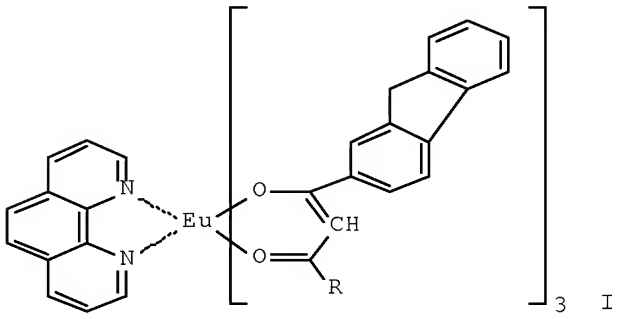
FILE COVERS 1907 - 30 Nov 2007 VOL 147 ISS 24
FILE LAST UPDATED: 29 Nov 2007 (20071129/ED)

=> s l3
L4 118 L3

=> d abs fbib 100-118

L4 ANSWER 100 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



I

AB The device, having ≥600 nm fluorescence peak, contains the title Eu complex I (R = H, OH, C1-20 (cyclo) alkyl, aryl). The substituent R in I may be haloalkyl. The device showed high luminance and excellent deterioration resistance.

AN 1998:576644 CAPLUS Full-text
DN 129:223052
TI Organic electroluminescent device containing fluorene-substituted phenanthroline-Eu complex as dopant
IN Kamikawa, Masahiro; Miyamoto, Hiroo
PA Oki Electric Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	JP 10231477	A	19980902	JP 1997-35012	19970219
				JP 1997-35012	19970219

OS MARPAT 129:223052

L4 ANSWER 101 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Reverse saturable absorption of a novel Mo complex of fullerene (η2-C60) Mo(CO)2(o-phen)(DBM)·2C6H6·C5H12 was studied under irradiation of 10 ns laser pulses at 532 nm. An enhancement of the optical limiting behavior was observed in comparison with C60. An explanation based on the enhanced triplet-state absorption caused by the intra-mol. charge transfer was predicted. The relation between the clamped laser fluence and low-intensity transmissivity, or the concentration of the solution, was also studied and a linear dependence was revealed.

AN 1998:416162 CAPLUS Full-text

DN 129:154405

TI Enhanced optical limiting performance of a novel molybdenum complex of fullerene

AU Zhang, Tieqiao; Li, Jianliang; Gao, Peng; Gong, Qihuang; Tang, Kaluo; Jin, Xianglin; Zheng, Shijun; Li, Lei

CS Mesoscopic Laboratory, Department of Physics, Peking University, Beijing, 100871, Peop. Rep. China

SO Optics Communications (1998), 150(1-6), 201-204
CODEN: OPCOB8; ISSN: 0030-4018

PB Elsevier Science B.V.

DT Journal

LA English

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 102 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A rotaxane made from a bisphenanthroline Cu(I) complex and two C60 units acting as stoppers was synthesized. Electrochem., spectroscopic and photophys. properties of the individual components, a methanofullerene and a Cu(I) catenate, were determined The properties of the methanofullerene were also compared with those of plain C60 and rationalized with the aid of semiempirical calcns. The changes in the photophys. properties detected in the rotaxane with respect to the models were assigned to the occurrence of intramol. processes. The excited singlet state localized on the fullerene and the MLCT excited state centered on the Cu(I) complex are both quenched. Deactivation of the fullerene excited singlet state occurs by energy transfer to the Cu(I)-complex moiety, which competes with intersystem crossing to triplet fullerene, whereas the Cu(I)-complex excited state is mainly quenched by electron transfer to form the charge-separated state consisting of the oxidized metal center [Cu(phen)2]2+ and the fullerene radical anion. The fullerene triplet, formed in reduced yield with respect to the model, is also quenched by electron transfer to the same charge-separated state. The ability of both model components to sensitize singlet oxygen is completely suppressed in the rotaxane. The occurrence of a fast back-electron-transfer reaction is postulated, as spectroscopic detection of the charge-separated state was not achieved.

AN 1998:223266 CAPLUS Full-text

DN 128:316543

TI A copper(I)-complexed rotaxane with two fullerene stoppers: synthesis, electrochemistry, and photoinduced processes

AU Armaroli, Nicola; Diederich, Francois; Dietrich-Buchecker, Christiane O.; Flamigni, Lucia; Marconi, Giancarlo; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre

CS Istituto di Fotochimica e Radiazioni d'Alta Energia del CNR, Bologna, I-40129, Italy

SO Chemistry--A European Journal (1998), 4(3), 406-416
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
RE.CNT 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 103 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Bromination of com. available 5,6-dimethyl-1,10-phenanthroline with N-bromosuccinimide led to the formation of 5,6-bis(bromomethyl)-1,10-phenanthroline, a new compound, in 33% isolated yield. Conversion of the brominated compound to its corresponding o-quinodimethane intermediate was accomplished by reaction with tetrahexylammonium iodide. Reaction of this intermediate with C60 in refluxing toluene resulted in the formation of the final product, phenanthrolyl[60]fullerene, compound (1), in a 43% isolated yield. Spontaneous self-assembly of 1,10-phenanthroline on a Au(111) surface resulted in the formation of well-ordered monolayers. Addition of compound (1) to these monolayers resulted in the intercalation of the phenanthrolyl group directly into the stacks. Self-assembly from a solution of compound (1) containing small amts. of 1,10-phenanthroline resulted in the formation of a secondary layer of fullerene moieties. Since the fullerene diameter is approx. 1.0 nm and the phenanthroline-phenanthroline distances are about 0.33 nm (almost exactly 1/3), the fullerene packing is approx. commensurate with that of the phenanthrolines.
AN 1998:69197 CAPLUS Full-text
DN 128:172638
TI Self-Assembled Fullerene-Derivative Monolayers on a Gold Substrate Using Phenanthroline-Au Interactions
AU Dominguez, Olaf; Echegoyen, Luis; Cunha, Fred; Tao, Nongjian
CS Department of Chemistry, University of Miami, Coral Gables, FL, 33124, USA
SO Langmuir (1998), 14(4), 821-824
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 104 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Eu complexes with β-diketone ligands were synthesized and characterized using luminescence spectroscopy. Complexes with fluorene show high fluorescence in THF solution and exhibit a sharp emission peak at 615 nm. The authors have improved the energy transfer from the blue-emitting material (host) to the Eu complex (guest) by the synthesis of a new Eu complex which exhibits an absorption peak at lower energy with respect to the emission energy of the host. With respect to volatility, since some thin films of the complexes were not formed easily by vapor deposition, the authors have examined the thermal properties of the Eu complexes with phenanthroline derivs. The efficiency of the energy transfer and volatility of these complexes are discussed.
AN 1998:57744 CAPLUS Full-text
DN 128:148811
TI Synthesis and luminescent properties of europium complexes
AU Uekawa, M.; Miyamoto, Y.; Ikeda, H.; Kaifu, K.; Nakaya, T.
CS Higashiasakawa Hachioji, 550-5, Research and Development Group, Oki Electric Industry Co., Ltd., Tokyo, 193, Japan
SO Synthetic Metals (1997), 91(1-3), 259-262
CODEN: SYMEDZ; ISSN: 0379-6779
PB Elsevier Science S.A.
DT Journal

LA English
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 105 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB The macrocyclization between buckminsterfullerene, C60, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C60 with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C60 under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH2Cl2 showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction In CH2Cl2, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π-chromophore and a larger raise in LUMO energy in the former derivs.
AN 1997:727152 CAPLUS Full-text
DN 128:75385
TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives
AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice
CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.
SO Helvetica Chimica Acta (1997), 80(7), 2238-2276
CODEN: HCACAV; ISSN: 0018-019X
PB Verlag Helvetica Chimica Acta
DT Journal
LA English
OS CASREACT 128:75385

L4 ANSWER 106 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Novel W and Mo complexes of fullerene [M(η2- C60)(CO)2(phen)(dbm)]·C6H6·C5H12 (M = W 1 or Mo 2; dbm = di-Bu maleate; phen = 1,10-phenanthroline) were synthesized by heating a solution of C60 with [M(CO)4(phen)] and dbm in toluene followed by chromatog. over silica gel. They were characterized by chemical anal., IR, UV/visible, 1H and 13C NMR spectroscopy and single-crystal

x-ray diffraction anal. The complexes are isomorphous. The metal atom coordination is distorted octahedral with the two CO groups and phen in the equatorial plane and the metal binds in an η2 fashion to C-C bonds of C60 and dbm. Both complexes are remarkably stable in air and have unusually good solubility

AN 1997:708146 CAPLUS Full-text

DN 127:358923

TI Syntheses and structural characterizations of novel tungsten and molybdenum complexes of fullerene [M(η2-C60)(CO)2(phen)(dbm)].2C6H6.C5H12 (M = W or Mo, phen = 1,10-phenanthroline, dbm = dibutyl maleate)

AU Tang, Kaluo; Zheng, Shijun; Jin, Xianglin; Zeng, Hui; Gu, Zhennan; Zhou, Xihuang; Tang, Youqi

CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China

SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (19), 3585-3587
CODEN: JCDTBI; ISSN: 0300-9246

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 127:358923

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 107 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

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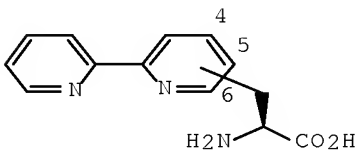
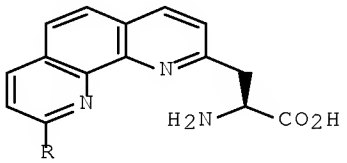


I



II

AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α-amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α-amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrol-2-yl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid β-carbon are observed Addnl., the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation consts. ranging from 10-3 to <10-6 M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

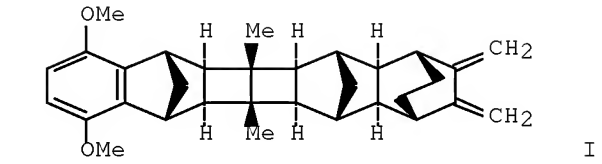
AN 1996:657128 CAPLUS Full-text

DN 126:19209

TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural Amino Acids and Peptide Secondary Structure
AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 126:19209
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 108 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Using std. synthetic or electrosynthetic techniques the authors prepd. five previously unreported fullerene derivs. Three of these are bis-aza-homofullerene (also known as aza-fulleroid) derivs. that contain a crown ether directly fused to the C60 moiety. Preliminary electrochem. results with these compds. show that complexation with alkali metal ions leads to strong effects in their voltammetric responses. A new methanofullerene, compound was prepared by the reaction of C602-, generated electrochem., with I2CH(t-butyl). This is the 1st time that methanofullerenes were prepared electrosynthetically. Other similar derivs. were prepared using the same technique, to probe the mechanism of the reaction. Results suggest a single electron transfer (SET) mechanism. Finally, a phenanthrolyl[60]fullerene was prepared directly by reacting the corresponding 9,10-bis(bromomethyl)phenanthroline with C60 in the presence of I-.
AN 1996:570704 CAPLUS Full-text
DN 125:300977
TI Synthesis and electrosynthesis of methano[60]fullerenes, bis-aza-fulleroid crown ethers, and phenanthrolyl[60]fullerene
AU Arias, Francisco; Boulas, Pierre; Zuo, Yuhong; Dominguez, Olaf; Gomez-Kaifer, Marielle; Echegoyen, Luis
CS Dep. Chem., Univ. Miami, Coral Gables, FL, 33124, USA
SO Proceedings - Electrochemical Society (1996), 96-10(Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials, Vol. 3), 165-176
CODEN: PESODO; ISSN: 0161-6374
PB Electrochemical Society
DT Journal
LA English

L4 ANSWER 109 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



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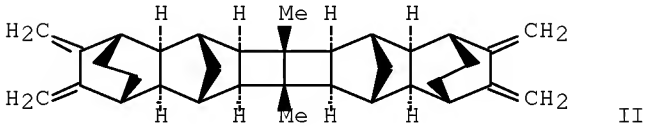


II

AB Diels-Alder reaction of C60 with 1,3-dienes, e.g. I, affords "ball-and-chain" systems bearing two chromophores linked via a rigid, hybrid saturated polynorbornane-bicyclo[2.2.0]hexane ("norbornylogous") hydrocarbon bridge. Analogous reaction with the bis(diene) II affords a soluble dumbbell system bearing two C60 chromophores. The norbornylogous bridge is a strong mediator of electron and energy transfer via a through-bond coupling mechanism. The X-ray structure of a dimethoxybenzene-bridge-C60 system reveals favorable self-complementarity manifested by the unusual packing structure in the crystal. Mol. mechanics, semiempirical, and ab initio conformational analyses of some of these compds. (MM2, Sybyl, CVFF, AM1, HF/3-21G) were performed to quantify their ability to adopt two nondegenerate boat conformations, i.e., extended and folded conformers, as well as their kinetic barrier of interconversion. A similar treatment of the C60-bridge-C60 system prepared from II revealed unusual preference for the folded-folded conformer (18.9 kcal/mol at CVFF level), which was not reproduced by the AM1 method (0.11 kcal/mol). The reduction potentials of the systems were about 0.1-0.5 V more neg. than C60, and the third reduction potential (E3) of a 6-bond system was 0.14 V more neg. than the corresponding wave for a 10-bond system.

AN 1996:401828 CAPLUS Full-text

DN 125:194922

TI Synthesis of a Variety of Bichromophoric "Ball-and-Chain" Systems Based on Buckminsterfullerene (C60) for the Study of Intramolecular Electron and Energy Transfer Processes

AU Lawson, James M.; Oliver, Anna M.; Rothenfluh, Daniel F.; An, Yi-Zhong; Ellis, George A.; Ranasinghe, Millagahamada G.; Khan, Saeed I.; Franz, Andreas G.; Ganapathi, Padma S.; et al.

CS School of Chemistry, University of New South Wales, Sydney, 2052, Australia

SO Journal of Organic Chemistry (1996), 61(15), 5032-5054
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

L4 ANSWER 110 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB An iterative design process involving the synthesis and structural analyses of five polypeptides patterned after the zinc finger domains is described. This process has led to the development of a metal-independent 23-reside folded ββα peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthrol-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-

dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is 0.9 ± 0.3 Å. Anal. of the resulting structure reveals that the α-helix and β-hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β-hairpin formation; a control peptide, in which the β-turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text
DN 124:317843
TI Economy in Protein Design: Evolution of a Metal-Independent ββα Motif Based on the Zinc Finger Domains
AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (1996), 118(13), 3073-81
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English

L4 ANSWER 111 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB A series of receptors were prepd. all contg. two adenine binding sites linked by various spacers. Their ability to act as templates in the coupling of two adenine derivs., an active ester and an amine, in CHCl3 was evaluated. The accelerations varied from none to 700-fold. Binding studies of the coupling product with these templates confirmed involvement of both binding sites. When the spacer was a 1,10-phenanthroline unit, an efficient hydrolysis reaction of the active ester was observed Another series of receptors were prepared containing one adenine receptor and various polar functional groups. The mols. were evaluated as catalysts in the coupling of an adenine-derived active ester and n-butylamine. The orientation as well as the nature of the functional group greatly influenced the coupling rate. A carboxylate group was most effective, accelerating the intracomplex reaction 250-fold.

AN 1995:653636 CAPLUS Full-text
DN 123:256408
TI Passive template effects and active acid-base involvement in catalysis of organic reactions
AU Pieters, Roland J.; Huc, Ivan; Rebek, Julius, Jr.
CS Dep. Chemistry, Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO Chemistry--A European Journal (1995), 1(3), 183-92 Published in: Angew. Chem., Int. Ed. Engl., 34(11)
CODEN: CEUJED; ISSN: 0947-6539
PB VCH
DT Journal
LA English

L4 ANSWER 112 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB A three-component complex consisting of a coordinating ring, a copper(I) center and a difunctionalized fragment threaded inside the ring is reacted with a C60 derivative to afford a soluble rotaxane with two fullerenes as stoppers in 15% yield.

AN 1995:510099 CAPLUS Full-text
DN 122:305209
TI A copper(I)-complexed rotaxane with two fullerene stoppers
AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten,

Jean-Francois; Sauvage, Jean-Pierre
CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
SO Journal of the Chemical Society, Chemical Communications (1995), (7), 781-2
CODEN: JCCCAT; ISSN: 0022-4936
PB Royal Society of Chemistry
DT Journal
LA English

L4 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The photoreceptors comprise a conductive substrate with a coating of a photosensitive layer containing ≥1 of dipyridophenathroline-type bisazo compds. I, II, and III (A = coupler residue; R1, R2 = H, halo, alkyl, aryl) as a charge-generating agent. The photoreceptors show high photosensitivity and good durability. Thus, an Al vapor-deposited polyester film was coated with a composition containing I (A = IV) and 1-phenyl-3-(p-diethylaminostyryl)-5-(p-diethylaminophenyl)-2-pyrazoline to give a photoreceptor.
AN 1995:169535 CAPLUS Full-text
DN 122:118927
TI Electrophotographic photoreceptors using dipyridophenanthroline-type bisazo compound as charge-generating agent
IN Yamazaki, Mikio; Amano, Masayo; Kosho, Noboru
PA Fuji Electric Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

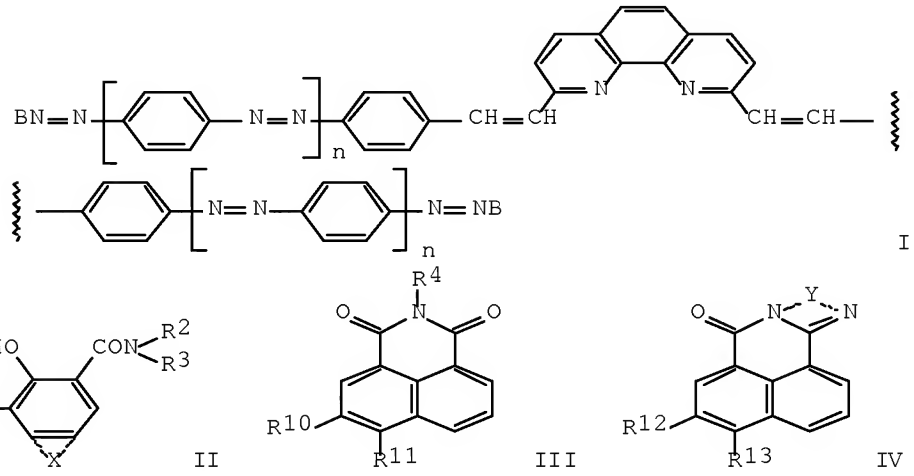
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06202356	A	19940722	JP 1992-347401	19921228
			JP 1992-347401	19921228

L4 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Substituting C atoms of fullerenes by heteroatoms and vacancies will lead to new and yet unknown spherically-shaped mols. termed heterofullerenes. The enormous structural diversity of these mols. is examined and their structural, electronic, and thermochem. properties are predicted using semiempirical computations. Computational results for complexes with ions lead to the hypothesis that these mols. behave like microscopic Faraday cages in which the electrons concentrate on the outer side of the sphere. It is predicted that some of these heterofullerenes are structurally and electronically similar to phthalocyanines and related mols. but offer many addnl. advantages. Potential uses such as adding heterofullerenes to fullerene materials, as superior starting materials for the fabrication of diamonds, as catalysts in hydrogenation reactions, as components of materials dominated until now by phthalocyanines, etc., are discussed. Simple synthetic routes to these compds. that are based on minor alterations of existing methods for fullerene production are proposed. Thermochem. calcns. show that the most promising possibility consists of using metal cyanide/graphite composite target rods instead of pure graphite rods as in a conventional fullerene synthesis.
AN 1993:427631 CAPLUS Full-text
DN 119:27631

TI Heterofullerenes: structure and property predictions, possible uses and synthetic proposals
AU Karfunkel, Heinrich R.; Dressler, Thomas; Hirsch, Andreas
CS Ciba-Geigy AG, Basel, CH-4002, Switz.
SO Journal of Computer-Aided Molecular Design (1992), 6(5), 521-35
CODEN: JCADEQ; ISSN: 0920-654X
DT Journal
LA English

L4 ANSWER 115 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB The title compd. is monoclinic, space group P21/n, with a 9.101(2), b 20.681(3), c 11.101(1) Å, and β 93.55(2)°; Z = 2, dc = 1.55, R = 0.039 for 3064 reflections. Atomic coordinates are given. Every Cu atom is square pyramidally coordinated by 3 O atoms and 2 N atoms. The 2 Cu atoms are connected to 2 bridging OH O atoms to form a CuII binuclear unit with a Cu2O2 core. The binuclear unit as a whole possesses a center of symmetry with a Cu...Cu distance of 3.016 Å.
AN 1992:437256 CAPLUS Full-text
DN 117:37256
TI Structure of a copper complex of an α-hydroxylated acid: bis[μ-(9-hydroxy-9H-fluorene-9-carboxylato-O,μ-O')]-bis(1,10-phenanthroline)copper(II)]
AU Liu, Shixiong; Yu, Yunpeng
CS Inst. Struct. Chem., Fuzhou Univ., Fuzhou, 350002, Peop. Rep. China
SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(4), 652-5
CODEN: ACSCEE; ISSN: 0108-2701
DT Journal
LA English

L4 ANSWER 116 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB A photoconductive layer, which contains an azo deriv. I [n = 0, 1; B = II, III, IV (X = moiety to form a polycyclic conjugated ring or heterocyclic ring; R2, R3 = H, alkyl, aralkyl, aryl, group to form a heterocyclic ring; when R2 is H, R3 can be N:CR6R7 or NR8R9; R4 = alkyl, aralkyl, aryl; Y = divalent

aromatic hydrocarbon moiety, heterocyclic moiety; R6-R7 = H, alkyl, aryl, heterocyclyl, cyclic hydrocarbon group; R8, R9 = R2 ; in R10-R11 and R12-R13 = one of them is OH and the other one is bond)], is image-wise exposed with ≥20 lx-s light to form an optical memory. The memory formation is based on optical memory effect, which allows to make multiple copies with single exposure. Image quality of 100th copy was the same as that of 1st copy.

AN 1990:108494 CAPLUS Full-text
DN 112:108494
TI Method for memory formation on the electrophotographic photoreceptor
IN Ito, Masayuki; Takada, Masakazu; Ueda, Takamasa
PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01161355	A	19890626	JP 1987-321918	19871218
			JP 1987-321918	19871218

L4 ANSWER 117 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The title toner contains bisazo dyes of the structure I (A = arom. heterocyclyl containing 2 N-atoms; B = a coupler group of the structure II, III, IV, V, VI, or VII; Z = a group forming aromatic C or heterocyclic rings; G = (substituted) carbamoyl, sulfamoyl; R1 = alkyl, amino, carbamoyl, (esterified) carboxy, CN; M = aryl; R2, R3 = alkyl, aralkyl, aryl; Y = an aromatic hydrocarbylene, a divalent N-containing group), dispersed in thermoplastic resins. This toner, for an electrophotog. method excluding the use of the usual photoconductors, has high photosensitivity, dispersibility, and thermal stability. Thus, a photoconductive toner was prepared from SBM73 (styrenic acrylic polymer), the bisazo compound VIII, p-diethylaminobenzaldehyde phenylhydrazone, and Viscol 550P (polyethylene-polypropylene). This toner spread on an bronze plate was charged by corona discharge, imagewise exposed, a paper receptor superposed thereon, and then oppositely charged to transfer the image onto the paper. A clear blue-purple image was obtained by thermal fixing.

AN 1989:564179 CAPLUS Full-text
DN 111:164179
TI Photoconductive electrophotographic toner
IN Yasuno, Masahiro; Takada, Masakazu; Ueda, Hideaki
PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01079757	A	19890324	JP 1987-238390	19870921
			JP 1987-238390	19870921

L4 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electrophotog. photoreceptors have on a conductive support a photoconductive layer containing, as a charge carrier-generating agent, a bisazo compound of the formula (RN:N-p-C6H4CH:CH)2Z [I; R = a coupler residue selected from II [X = (substituted) aromatic hydrocarbon ring or heterocyclic ring; R1 = (substituted) carbamoyl or sulfamoyl], III [R2 = H, (substituted) aryl, amino, or carbamoyl, carboxyl or its ester, CN; R3 = (substituted) aryl], IV, V [R4, R5 = (substituted) alkyl or aralkyl, aryl], VI and VII (X1 = divalent aromatic hydrocarbon, divalent ring having N); Z = VIII, IX (R6 = H, halo, alkyl, alkoxy, CN, Ph). The coating solution of the layer exhibits good dispersibility, and the photoreceptors show good sensitivity, red color-reproducibility, and cyclicability. Thus, an Al-deposited polyester film was coated with a composition containing I (R = X; Z = VIII) and Vylon 200 (polyester resin) and overcoated with a composition containing a hydrazone and K-1300 (polycarbonate resin).

AN 1989:505765 CAPLUS Full-text
DN 111:105765

TI Electrophotographic photoreceptors containing bisazo pigment as charge carrier-generating agent

IN Takada, Masakazu; Ueda, Takamasa; Ito, Masayuki; Mikasa, Hiroko; Hirashima, Tsunesuke; Yamamoto, Soichi; Ishino, Yoshio; Ono, Toshinobu
PA Minolta Camera Co., Ltd., Japan; Osaka, City of

SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 01063971	A	19890309	JP 1988-34592		19880216
				JP 1987-126137	A1	19870522
	JP 01063972	A	19890309	JP 1988-34593		19880216
				JP 1987-126137	A1	19870522

PATENT FAMILY INFORMATION:

FAN 1990:207918

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 01297652	A	19891130	JP 1988-127495		19880525
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707
				JP 1988-271899	A	19881027

FAN 1990:488242

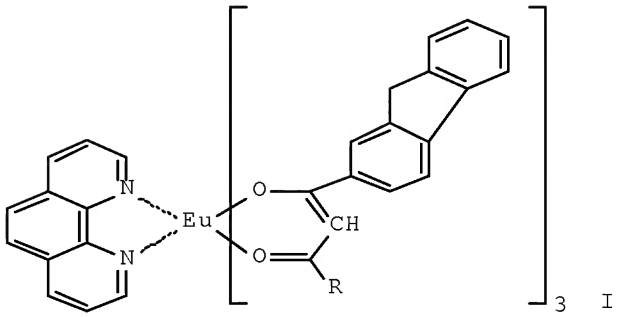
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 02019854	A	19900123	JP 1988-169379		19880707
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707
				JP 1988-271899	A	19881027

FAN 1990:581400

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 02118580	A	19900502	JP 1988-271899		19881027
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707

=> d abs fbib 100-118 hitstr

L4 ANSWER 100 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



I

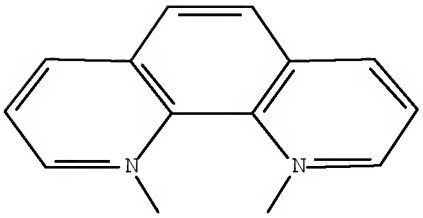
AB The device, having ≥600 nm fluorescence peak, contains the title Eu complex I (R = H, OH, C1-20 (cyclo) alkyl, aryl). The substituent R in I may be haloalkyl. The device showed high luminance and excellent deterioration resistance.

AN 1998:576644 CAPLUS Full-text
DN 129:223052
TI Organic electroluminescent device containing fluorene-substituted phenanthroline-Eu complex as dopant
IN Kamikawa, Masahiro; Miyamoto, Hiroo
PA Oki Electric Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10231477	A	19980902	JP 1997-35012	19970219
			JP 1997-35012	19970219

OS MARPAT 129:223052
IT 202460-58-0P 202460-59-1P 202460-60-4P
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(high-luminance organic EL device containing fluorene-substituted phenanthroline-Eu complex as dopant)
RN 202460-58-0 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,4-trifluoro-1,3-butanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

PAGE 1-A



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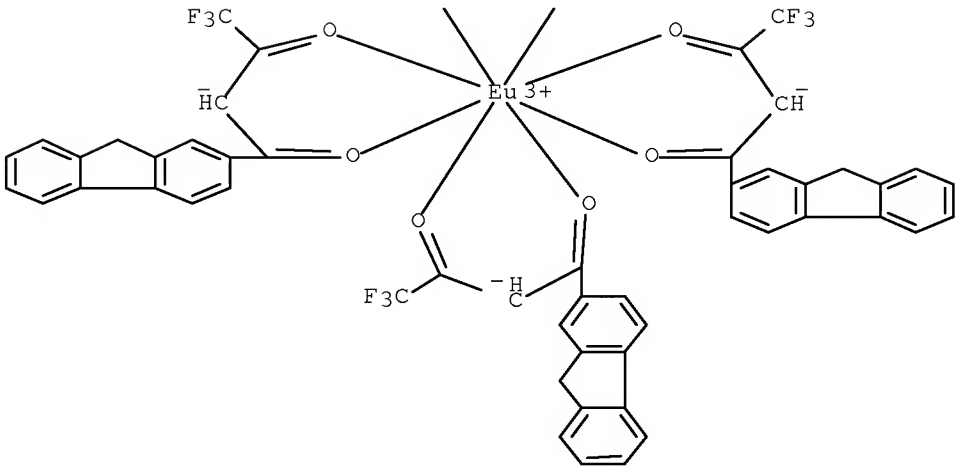
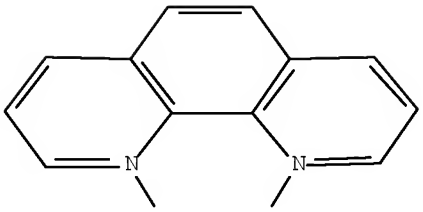


RN 202460-59-1 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,5-pentafluoro-1,3-pentanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

PAGE 1-A



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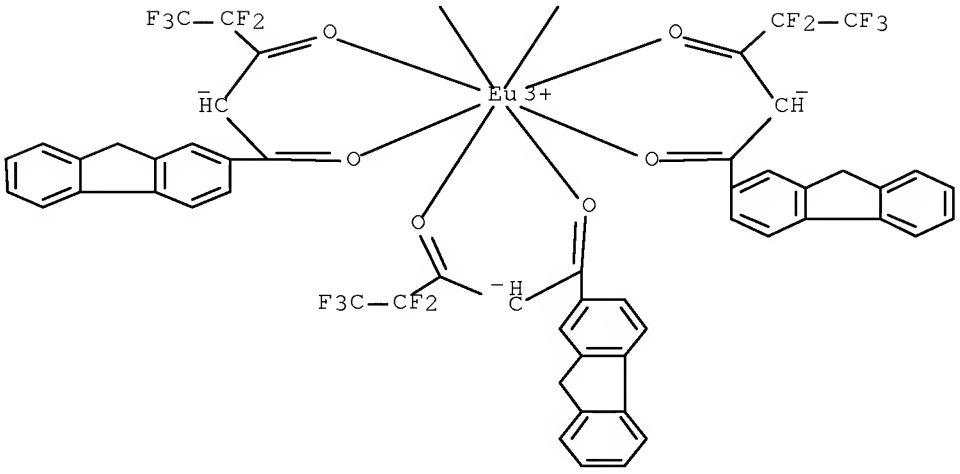
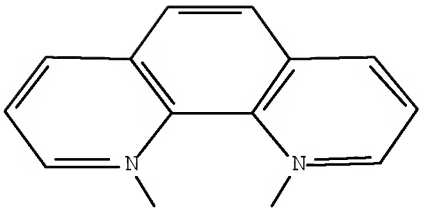


RN 202460-60-4 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

PAGE 1-A



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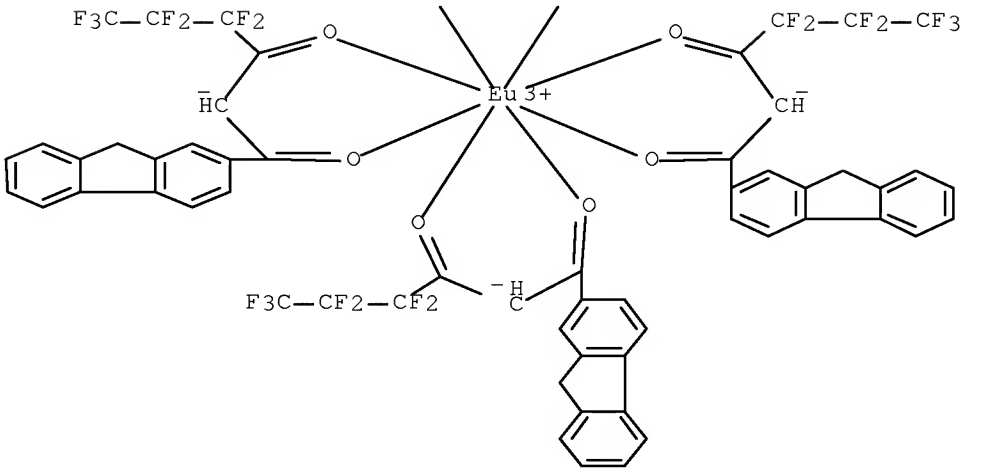


L4 ANSWER 101 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Reverse saturable absorption of a novel Mo complex of fullerene (η2-C60) Mo(CO)2(o-phen)(DBM)·2C6H6·C5H12 was studied under irradiation of 10 ns laser pulses at 532 nm. An enhancement of the optical limiting behavior was observed in comparison with C60. An explanation based on the enhanced triplet-state absorption caused by the intra-mol. charge transfer was predicted. The relation between the clamped laser fluence and low-intensity transmissivity, or the concentration of the solution, was also studied and a linear dependence was revealed.

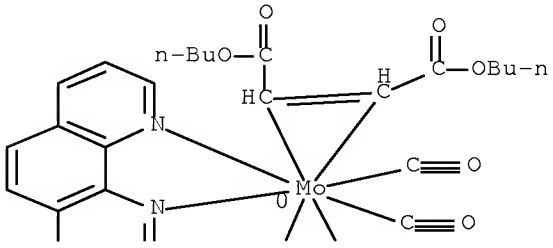
AN 1998:416162 CAPLUS Full-text

DN 129:154405

TI Enhanced optical limiting performance of a novel molybdenum complex of fullerene

AU Zhang, Tieqiao; Li, Jianliang; Gao, Peng; Gong, Qihuang; Tang, Kaluo; Jin, Xianglin; Zheng, Shijun; Li, Lei

CS Mesoscopic Laboratory, Department of Physics, Peking University, Beijing, 100871, Peop. Rep. China
SO Optics Communications (1998), 150(1-6), 201-204
CODEN: OPCOB8; ISSN: 0030-4018
PB Elsevier Science B.V.
DT Journal
LA English
IT 198712-81-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(enhanced optical limiting performance of a novel molybdenum complex of fullerene with reverse saturable absorption and triplet-state charge transfer)
RN 198712-81-1 CAPLUS
CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)



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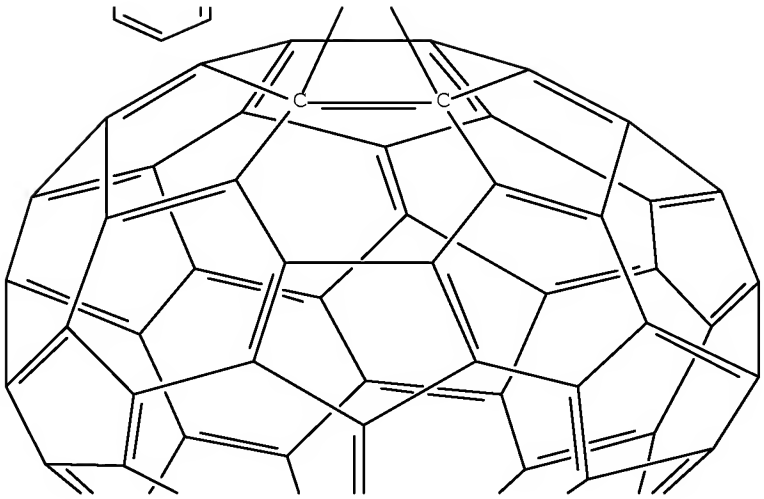

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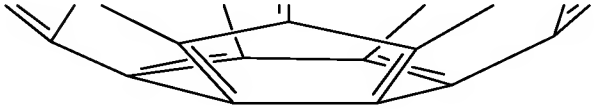


RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 102 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A rotaxane made from a bisphenanthroline Cu(I) complex and two C60 units acting as stoppers was synthesized. Electrochem., spectroscopic and photophys. properties of the individual components, a methanofullerene and a Cu(I) catenate, were determined The properties of the methanofullerene were also compared with those of plain C60 and rationalized with the aid of semiempirical calcns. The changes in the photophys. properties detected in the rotaxane with respect to the models were assigned to the occurrence of intramol. processes. The excited singlet state localized on the fullerene and the MLCT excited state centered on the Cu(I) complex are both quenched. Deactivation of the fullerene excited singlet state occurs by energy transfer to the Cu(I)-complex moiety, which competes with intersystem crossing to triplet fullerene, whereas the Cu(I)-complex excited state is mainly quenched by electron transfer to form the charge-separated state consisting of the oxidized metal center [Cu(phen)2]2+ and the fullerene radical anion. The fullerene triplet, formed in reduced yield with respect to the model, is also quenched by electron transfer to the same charge-separated state. The ability of both model components to sensitize singlet oxygen is completely suppressed in the rotaxane. The occurrence of a fast back-electron-transfer reaction is postulated, as spectroscopic detection of the charge-separated state was not achieved.

AN 1998:223266 CAPLUS Full-text

DN 128:316543

TI A copper(I)-complexed rotaxane with two fullerene stoppers: synthesis,

electrochemistry, and photoinduced processes

AU Armaroli, Nicola; Diederich, Francois; Dietrich-Buchecker, Christiane O.; Flamigni, Lucia; Marconi, Giancarlo; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre

CS Istituto di Fotochimica e Radiazioni d'Alta Energia del CNR, Bologna, I-40129, Italy

SO Chemistry--A European Journal (1998), 4(3), 406-416
CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH

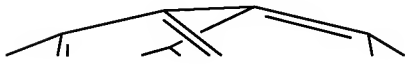
DT Journal

LA English

IT 206365-55-1
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(elec. potential of couple containing)

RN 206365-55-1 CAPLUS

CN Copper(2+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)- (9CI) (CA INDEX NAME)



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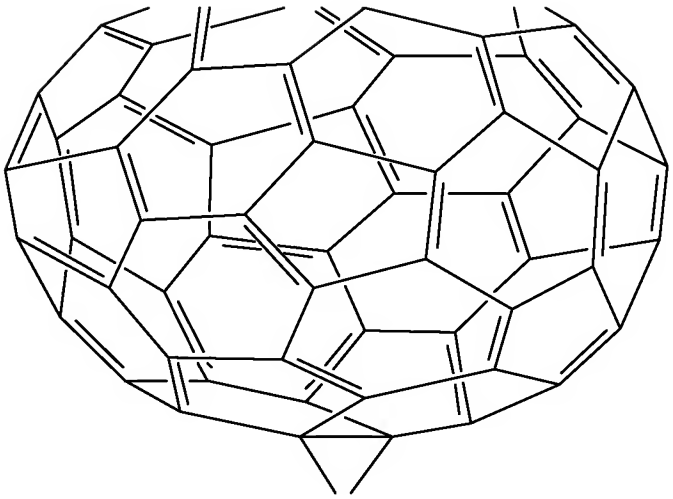

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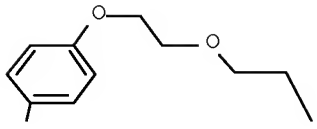

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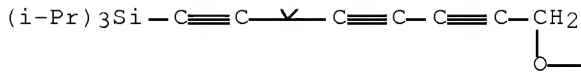

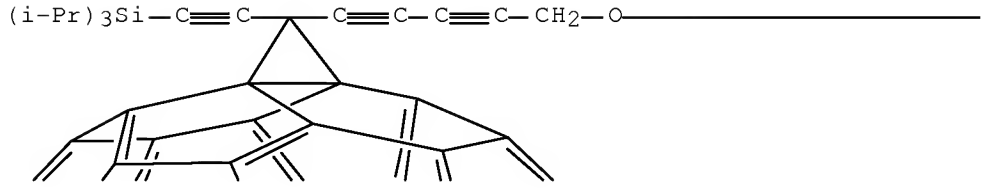

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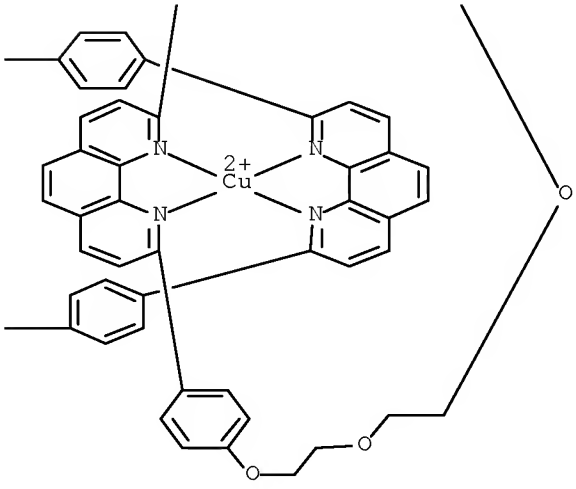
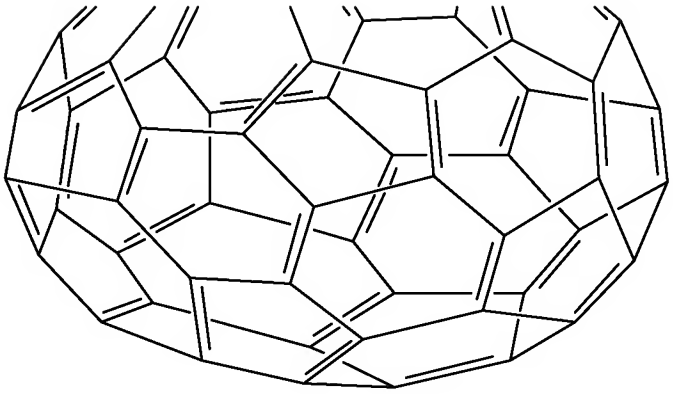




IT 163236-30-4P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation, electrochem., and photoinduced processes of copper(I) phenanthroline rotaxane complex with fullerene stoppers)

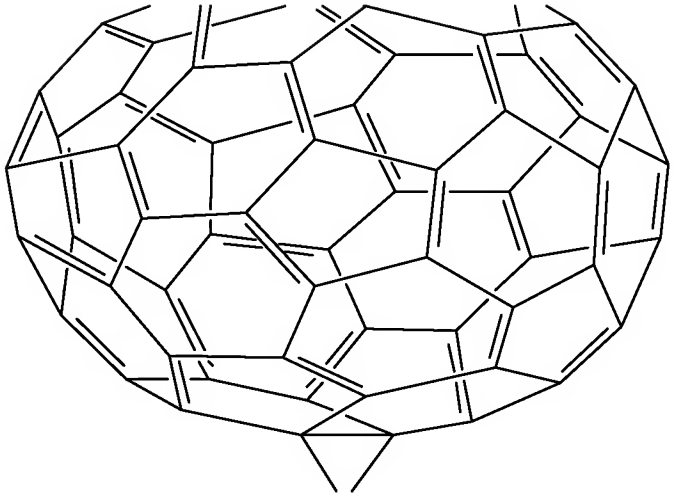
RN 163236-30-4 CAPLUS

CN Copper(1+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 162994-22-1
CMF C210 H90 Cu N4 O7 Si2
CCI CCS

PAGE 2-A



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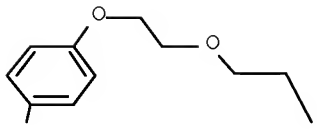

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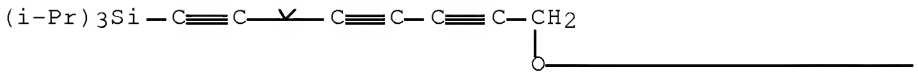

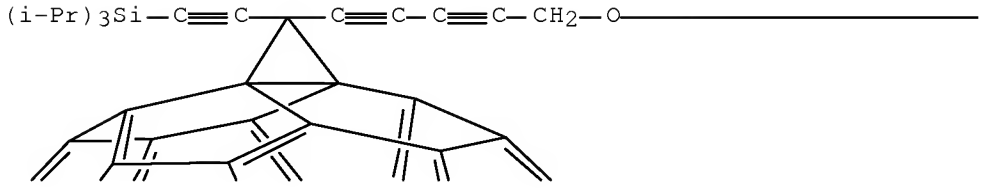

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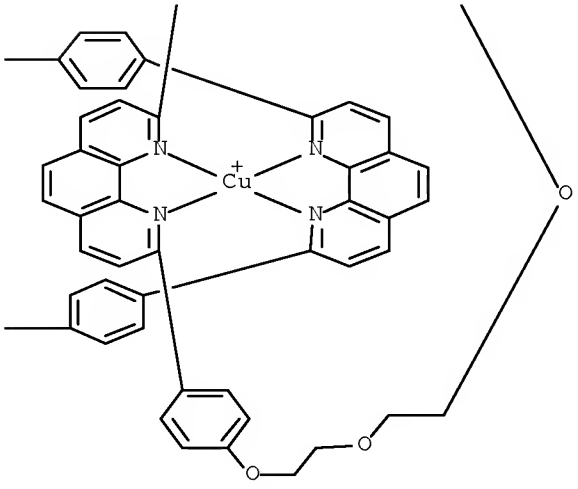
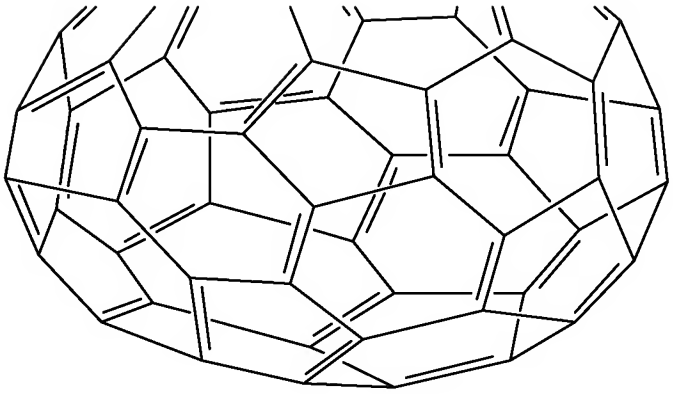
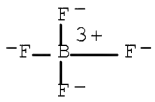




CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



RE.CNT 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 103 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Bromination of com. available 5,6-dimethyl-1,10-phenanthroline with N-bromosuccinimide led to the formation of 5,6-bis(bromomethyl)-1,10-phenanthroline, a new compound, in 33% isolated yield. Conversion of the brominated compound to its corresponding o-quinodimethane intermediate was accomplished by reaction with tetrahexylammonium iodide. Reaction of this intermediate with C60 in refluxing toluene resulted in the formation of the final product, phenanthrolyl[60]fullerene, compound (1), in a 43% isolated yield. Spontaneous self-assembly of 1,10-phenanthroline on a Au(111) surface resulted in the formation of well-ordered monolayers. Addition of compound (1) to these monolayers resulted in the intercalation of the phenanthrolyl group directly into the stacks. Self-assembly from a solution of compound (1) containing small amts. of 1,10-phenanthroline resulted in the formation of a secondary layer of fullerene moieties. Since the fullerene diameter is approx. 1.0 nm and the phenanthroline-phenanthroline distances are about 0.33 nm (almost exactly 1/3), the fullerene packing is approx. commensurate with that of the phenanthrolines.

AN 1998:69197 CAPLUS Full-text

DN 128:172638

TI Self-Assembled Fullerene-Derivative Monolayers on a Gold Substrate Using Phenanthroline-Au Interactions

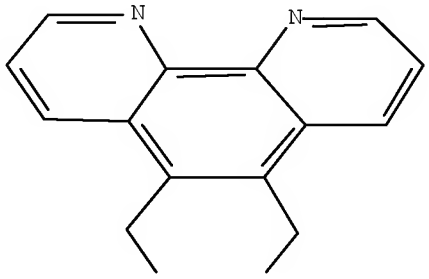
AU Dominguez, Olaf; Echegoyen, Luis; Cunha, Fred; Tao, Nongjian

CS Department of Chemistry, University of Miami, Coral Gables, FL, 33124, USA

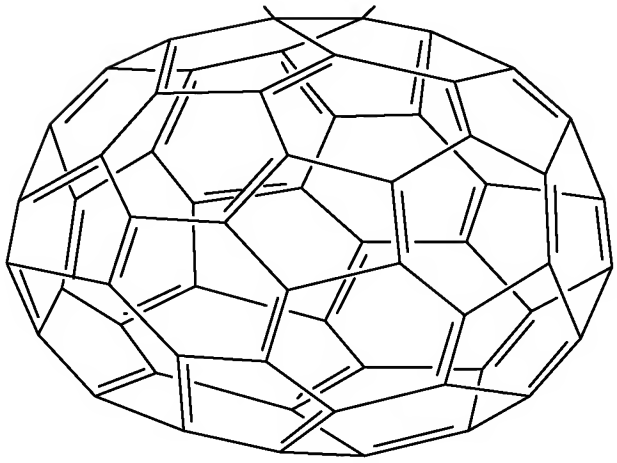
SO Langmuir (1998), 14(4), 821-824

CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
IT 182760-72-1P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(self-assembled phenanthroline substituted fullerene monolayers on a gold substrate)
RN 182760-72-1 CAPLUS
CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 104 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Eu complexes with β-diketone ligands were synthesized and characterized using luminescence spectroscopy. Complexes with fluorene show high fluorescence in THF solution and exhibit a sharp emission peak at 615 nm. The authors have improved the energy transfer from the blue-emitting material (host) to the Eu complex (guest) by the synthesis of a new Eu complex which exhibits an absorption peak at lower energy with respect to the emission energy of the host. With respect to volatility, since some thin films of the complexes were not formed easily by vapor deposition, the authors have examined the thermal properties of the Eu complexes with phenanthroline derivs. The efficiency of the energy transfer and volatility of these complexes are discussed.

AN 1998:57744 CAPLUS Full-text
DN 128:148811

TI Synthesis and luminescent properties of europium complexes

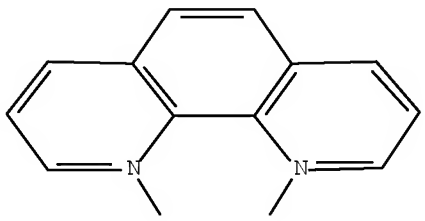
AU Uekawa, M.; Miyamoto, Y.; Ikeda, H.; Kaifu, K.; Nakaya, T.
CS Higashiasakawa Hachioji, 550-5, Research and Development Group, Oki Electric Industry Co., Ltd., Tokyo, 193, Japan

SO Synthetic Metals (1997), 91(1-3), 259-262
CODEN: SYMEDZ; ISSN: 0379-6779
PB Elsevier Science S.A.
DT Journal
LA English

IT 202460-58-0P 202460-59-1P 202460-60-4P
202460-61-5P 202460-62-6P 202460-63-7P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, luminescence, and thermal decomposition of)

RN 202460-58-0 CAPLUS

CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,4-trifluoro-1,3-butanedionato-κO,κO']](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



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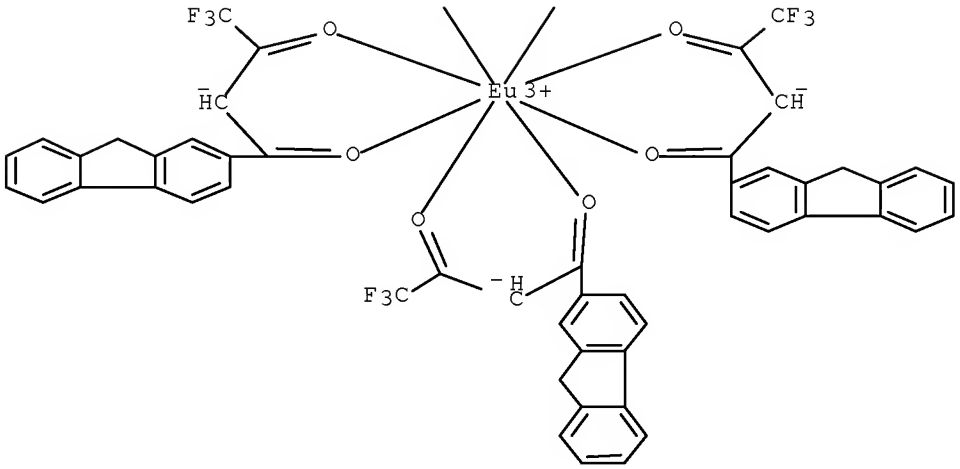
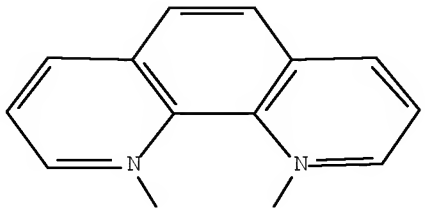


RN 202460-59-1 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,5-pentafluoro-1,3-pentanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

PAGE 1-A



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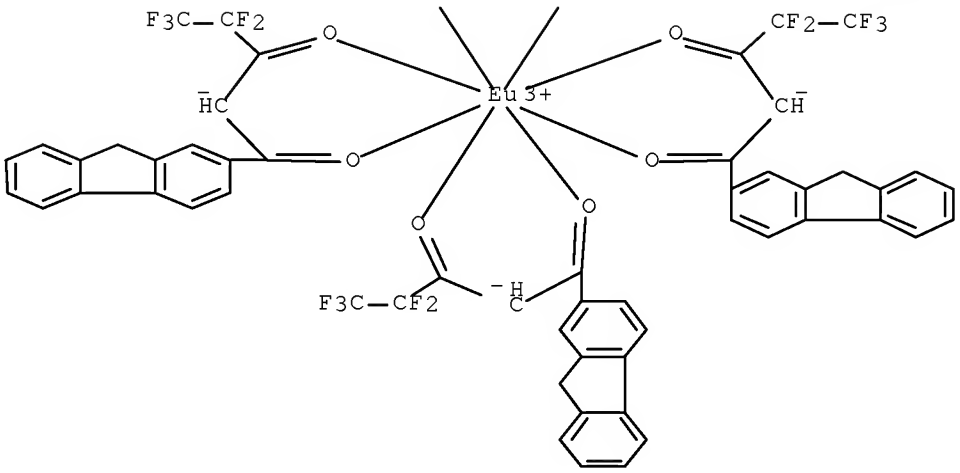
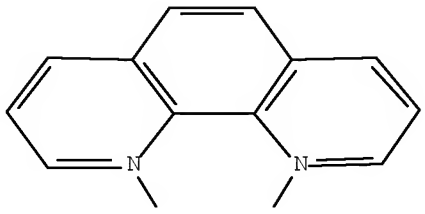
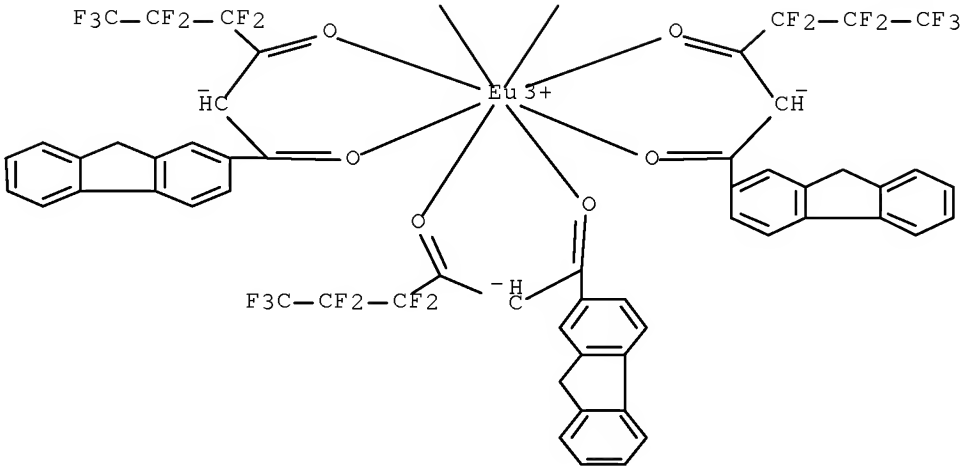


RN 202460-60-4 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

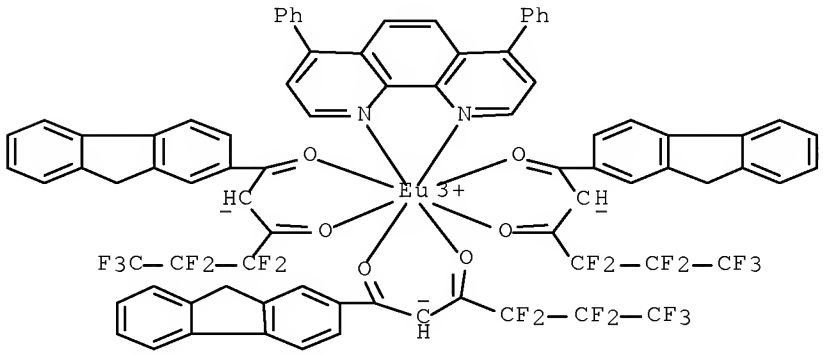
PAGE 1-A





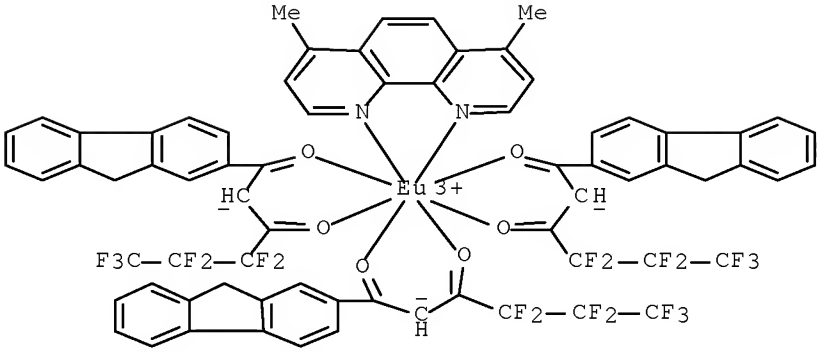
RN 202460-61-5 CAPLUS

CN Europium, (4,7-diphenyl-1,10-phenanthroline-κN1,κN10)tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO']- (9CI) (CA INDEX NAME)

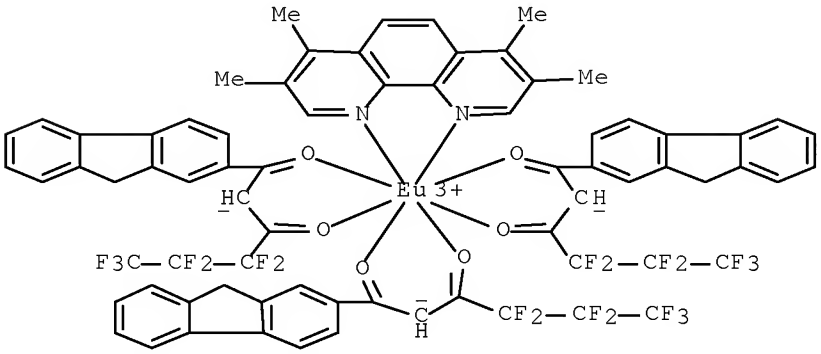


RN 202460-62-6 CAPLUS

CN Europium, (4,7-dimethyl-1,10-phenanthroline-κN1,κN10)tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO']- (9CI) (CA INDEX NAME)



RN 202460-63-7 CAPLUS
CN Europium, tris[1-(9H-fluoren-2-yl)-4,4,5,5,6,6,6-heptafluoro-1,3-hexanedionato-κO,κO'](3,4,7,8-tetramethyl-1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 105 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB The macrocyclization between buckminsterfullerene, C60, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C60 with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C60 under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same

method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH2Cl2 showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction In CH2Cl2, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π-chromophore and a larger raise in LUMO energy in the former derivs.

AN 1997:727152 CAPLUS Full-text

DN 128:75385

TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives

AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice

CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.

SO Helvetica Chimica Acta (1997), 80(7), 2238-2276
CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

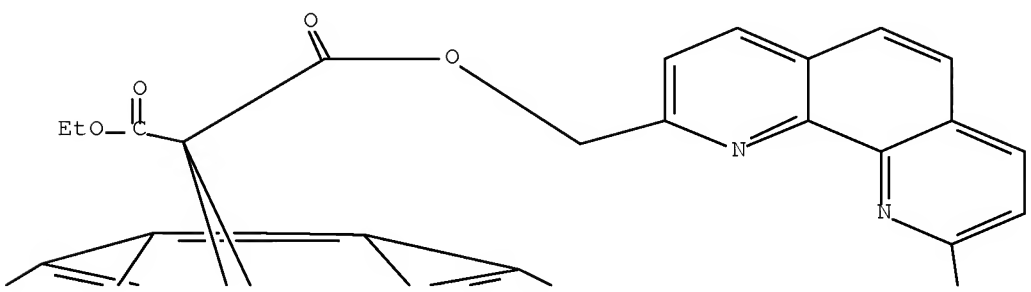
LA English

OS CASREACT 128:75385

IT 200352-99-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fullerene dendrimers and multifunctionalized fullerenes by macrocyclization on fullerene core and redox properties thereof)

RN 200352-99-4 CAPLUS

CN 3',3''-(Methanoxymethano[2,9][1,10]phenanthrolinomethanoxymethano)-3'H,3''H-dicyclopropa[1,9:16,17][5,6]fullerene-C60-Ih-3',3''-dicarboxylic acid, 4',19'-dioxo-, diethyl ester (9CI) (CA INDEX NAME)



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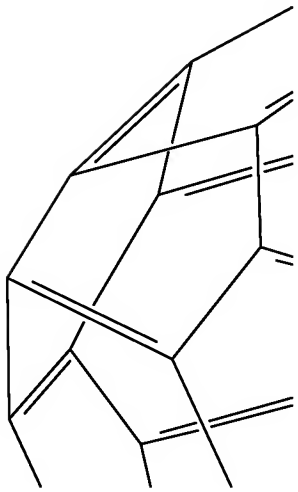
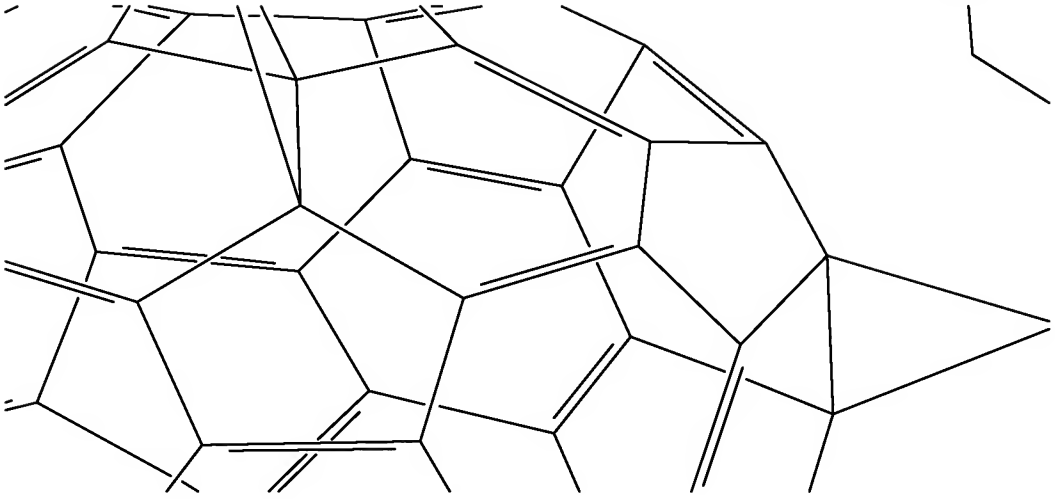


PAGE 2-B



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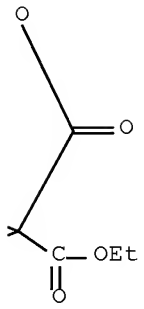

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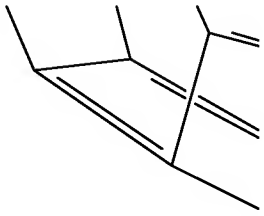

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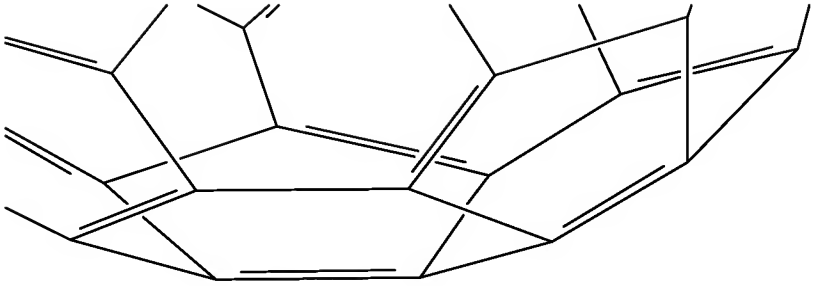
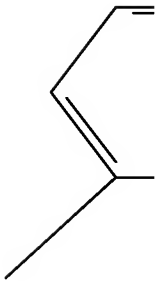


IT 200353-00-0P 200353-01-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fullerene dendrimers and multifunctionalized fullerenes by macrocyclization on fullerene core and redox properties thereof)
RN 200353-00-0 CAPLUS
CN 3',3''-(Methanoxymethano[2,9][1,10]phenanthrolinomethanoxymethano)-3'H,3''H-dicyclopropa[1,9:32,33][5,6]fullerene-C60-Ih-3',3''-dicarboxylic acid, 4',19'-dioxo-, diethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



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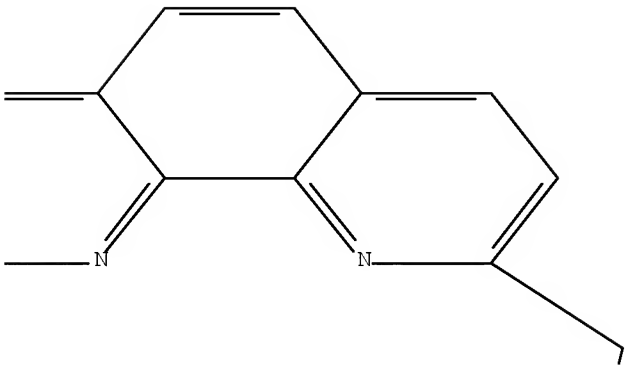
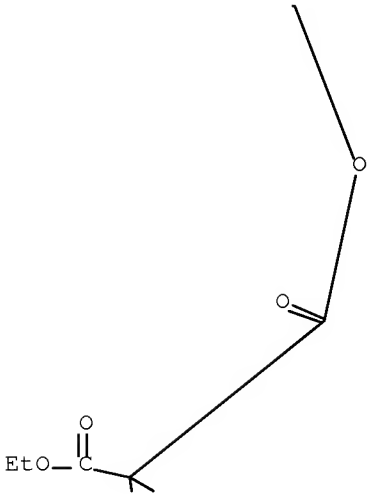


PAGE 2-A



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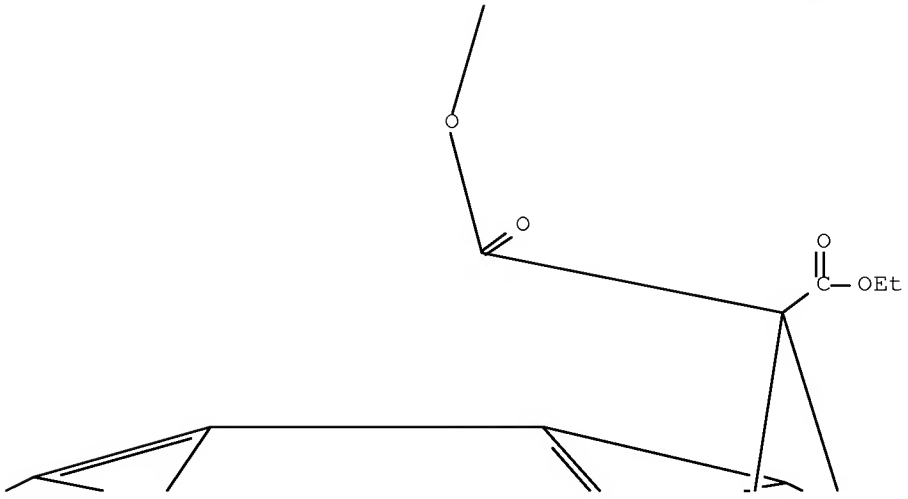
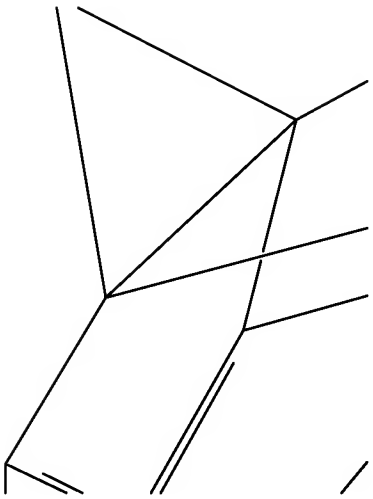
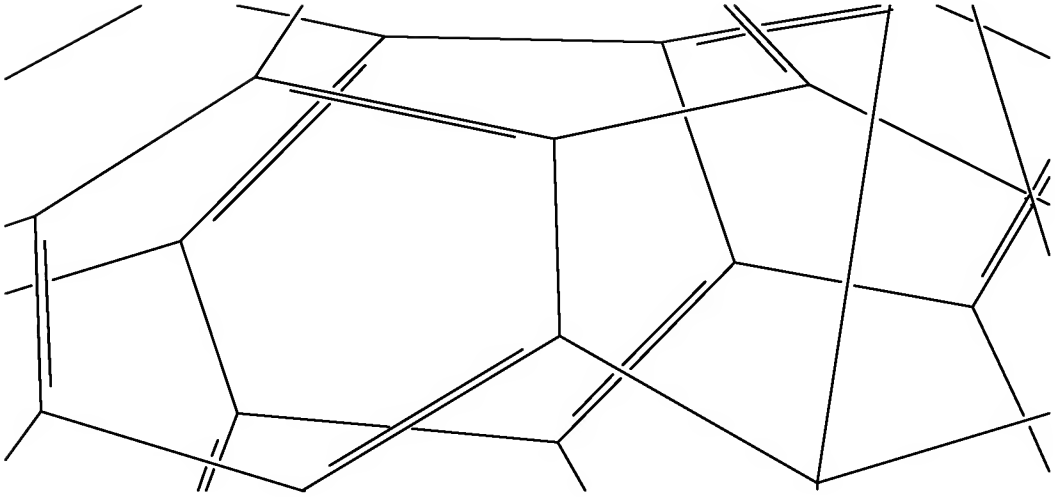
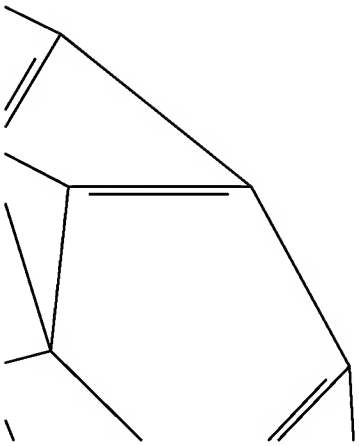
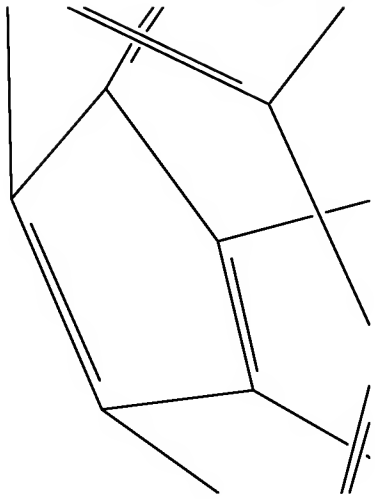


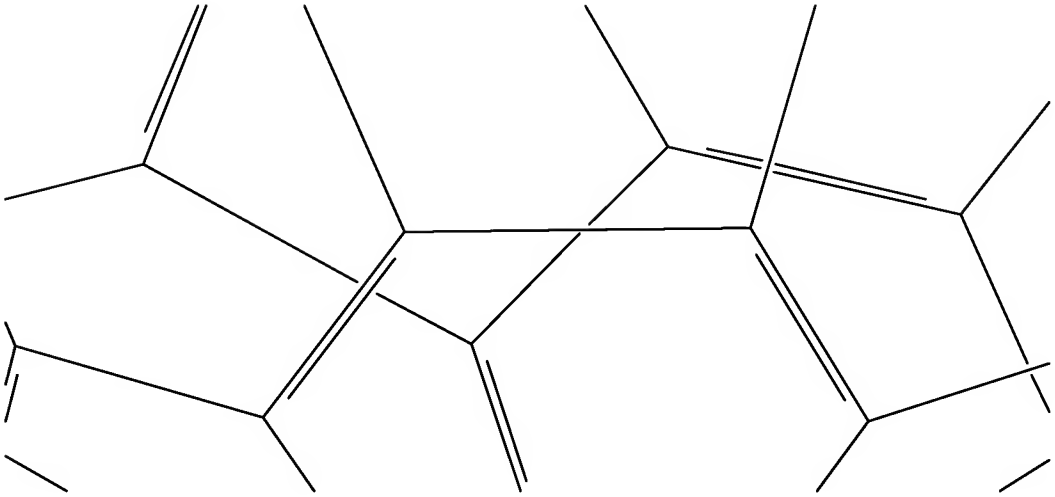








PAGE 4-B



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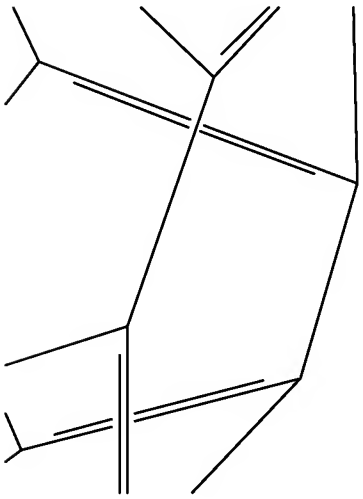
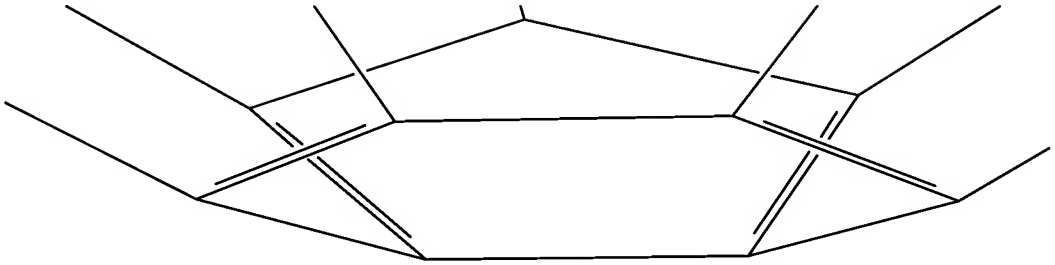
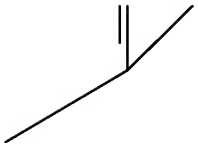


PAGE 5-A

PAGE 5-B

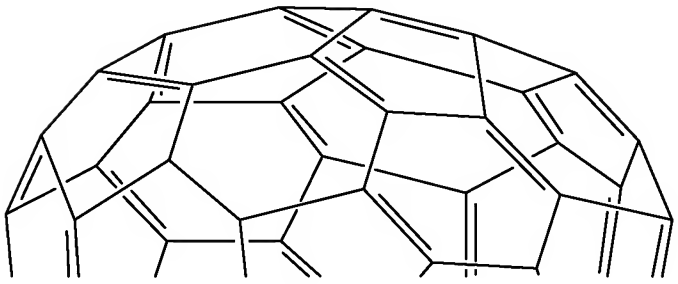


PAGE 5-C

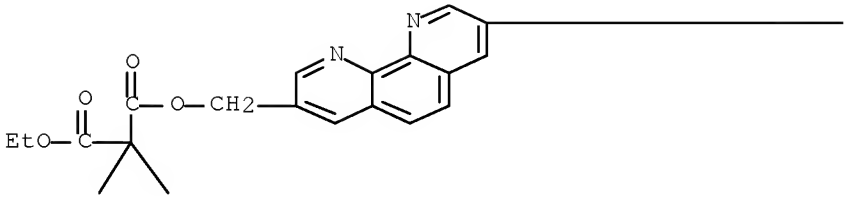


RN 200353-01-1 CAPLUS
CN 3'H-Cyclopropa[1,9:16,17][5,6]fullerene-C60-Ih-3',3'-dicarboxylic acid, 1,10-phenanthroline-3,8-diylbis(methylene) diethyl ester (9CI) (CA INDEX NAME)

PAGE 1-B



PAGE 2-A



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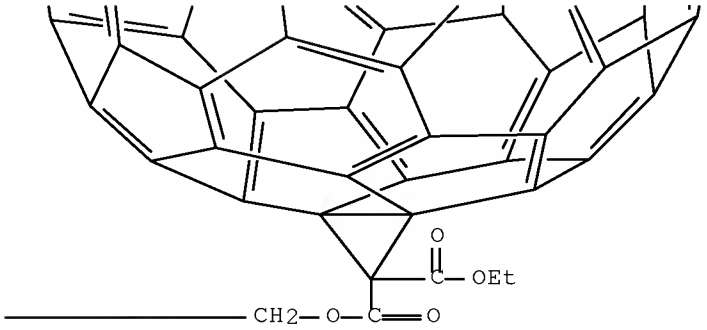

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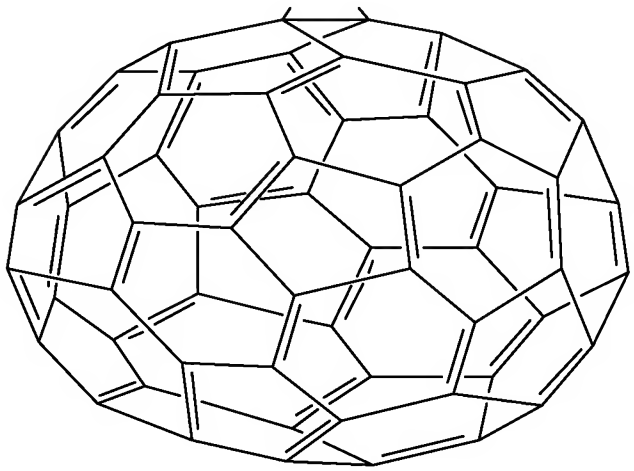

L4 ANSWER 106 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Novel W and Mo complexes of fullerene [M(η2- C60)(CO)2(phen)(dbm)]·C6H6·C5H12 (M = W 1 or Mo 2; dbm = di-Bu maleate; phen = 1,10-phenanthroline) were synthesized by heating a solution of C60 with [M(CO)4(phen)] and dbm in toluene followed by chromatog. over silica gel. They were characterized by chemical anal., IR, UV/visible, 1H and 13C NMR spectroscopy and single-crystal x-ray diffraction anal. The complexes are isomorphous. The metal atom coordination is distorted octahedral with the two CO groups and phen in the equatorial plane and the metal binds in an η2 fashion to C-C bonds of C60 and dbm. Both complexes are remarkably stable in air and have unusually good solubility

AN 1997:708146 CAPLUS Full-text

DN 127:358923

TI Syntheses and structural characterizations of novel tungsten and molybdenum complexes of fullerene [M(η2-C60)(CO)2(phen)(dbm)].2C6H6.C5H12 (M = W or Mo, phen = 1,10-phenanthroline, dbm = dibutyl maleate)

AU Tang, Kaluo; Zheng, Shijun; Jin, Xianglin; Zeng, Hui; Gu, Zhennan; Zhou, Xihuang; Tang, Youqi

CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China

SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (19), 3585-3587
CODEN: JCDTBI; ISSN: 0300-9246

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 127:358923

IT 198712-80-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; preparation and structure of tungsten and molybdenum fullerene complexes with phenanthroline and di-Bu maleate)

RN 198712-80-0 CAPLUS

CN Tungsten, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer, compd. with benzene and pentane (1:2:1) (9CI) (CA INDEX NAME)

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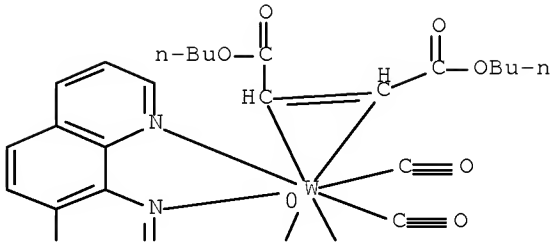
CRN 198712-79-7
CMF C86 H28 N2 O6 W
CCI CCS

PAGE 1-A



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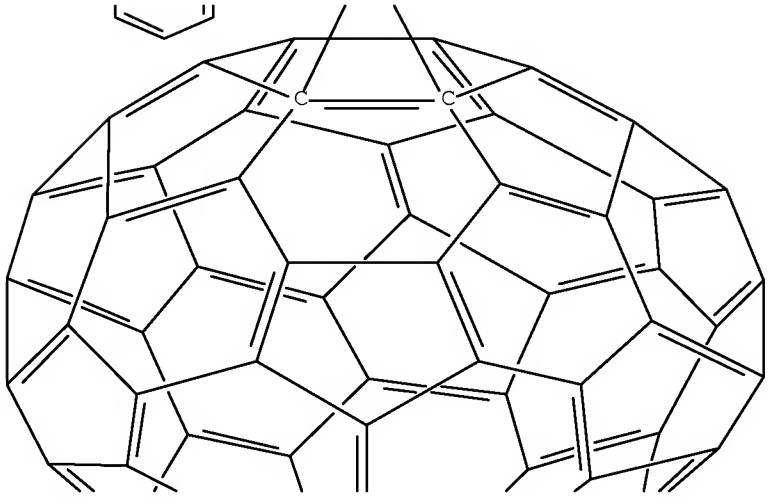

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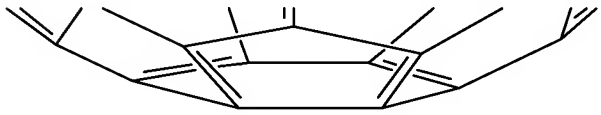
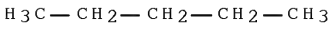


CM 2

CRN 109-66-0
CMF C5 H12

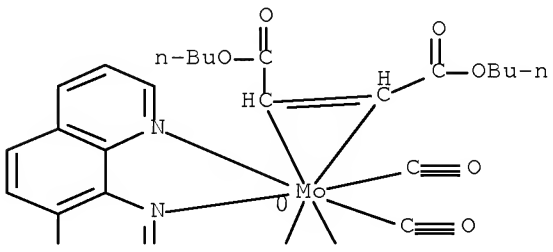


CM 3

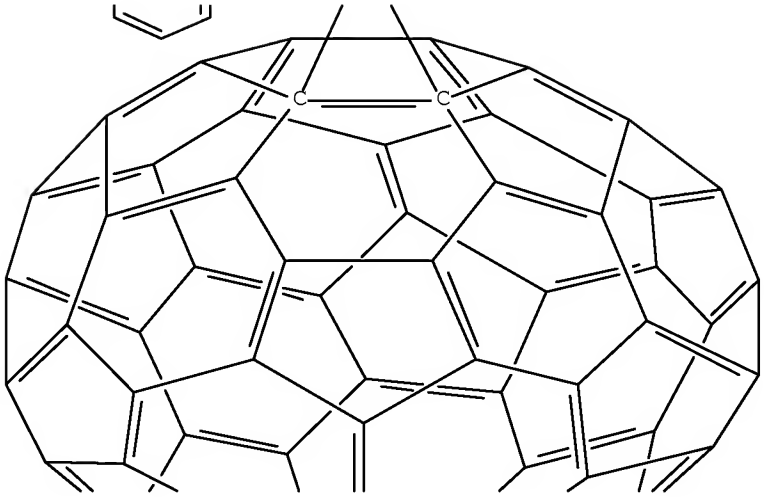
CRN 71-43-2
CMF C6 H6

IT 198712-81-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and structure of tungsten and molybdenum fullerene complexes with phenanthroline and di-Bu maleate)
RN 198712-81-1 CAPLUS
CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

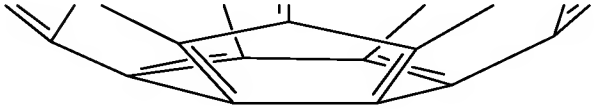
PAGE 1-A



PAGE 2-A

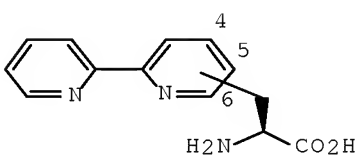


PAGE 3-A



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 107 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



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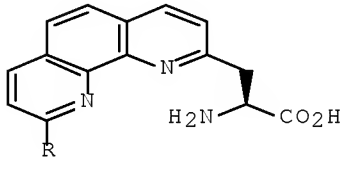


II

AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α-amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α-amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrol-2-yl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid

β-carbon are observed Addnl., the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation consts. ranging from 10-3 to <10-6 M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

AN 1996:657128 CAPLUS Full-text

DN 126:19209

TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural Amino Acids and Peptide Secondary Structure

AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara

CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

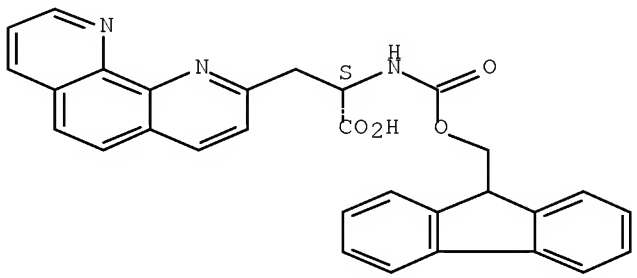
OS CASREACT 126:19209

IT 176435-49-7P 184152-94-1P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and metal binding of bipyridylalanine- and phenanthrolylalanine-containing peptides)

RN 176435-49-7 CAPLUS

CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

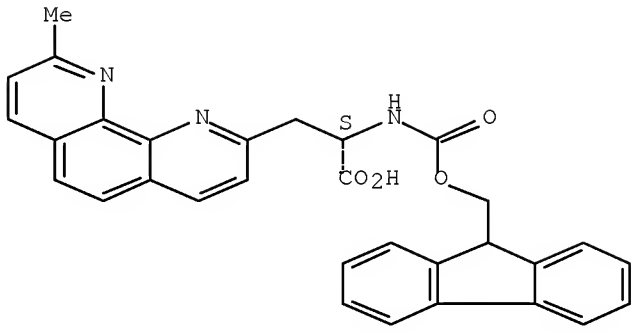
Absolute stereochemistry. Rotation (-).



RN 184152-94-1 CAPLUS

CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-9-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 108 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB Using std. synthetic or electrosynthetic techniques the authors prepd. five previously unreported fullerene derivs. Three of these are bis-aza-homofullerene (also known as aza-fulleroid) derivs. that contain a crown ether directly fused to the C60 moiety. Preliminary electrochem. results with these compds. show that complexation with alkali metal ions leads to strong effects in their voltammetric responses. A new methanofullerene, compound was prepared by the reaction of C602-, generated electrochem., with I2CH(t-butyl). This is the 1st time that methanofullerenes were prepared electrosynthetically. Other similar derivs. were prepared using the same technique, to probe the mechanism of the reaction. Results suggest a single electron transfer (SET) mechanism. Finally, a phenanthrolyl[60]fullerene was prepared directly by reacting the corresponding 9,10-bis(bromomethyl)phenanthroline with C60 in the presence of I-.

AN 1996:570704 CAPLUS Full-text

DN 125:300977

TI Synthesis and electrosynthesis of methano[60]fullerenes, bis-aza-fulleroid crown ethers, and phenanthrolyl[60]fullerene

AU Arias, Francisco; Boulas, Pierre; Zuo, Yuhong; Dominguez, Olaf; Gomez-Kaifer, Marielle; Echegoyen, Luis

CS Dep. Chem., Univ. Miami, Coral Gables, FL, 33124, USA

SO Proceedings - Electrochemical Society (1996), 96-10(Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials, Vol. 3), 165-176
CODEN: PESODO; ISSN: 0161-6374

PB Electrochemical Society

DT Journal

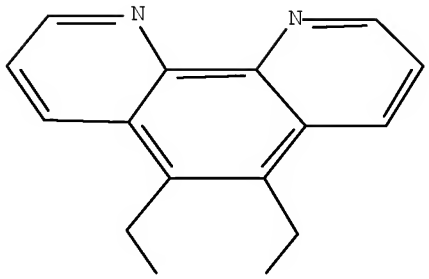
LA English

IT 182760-72-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

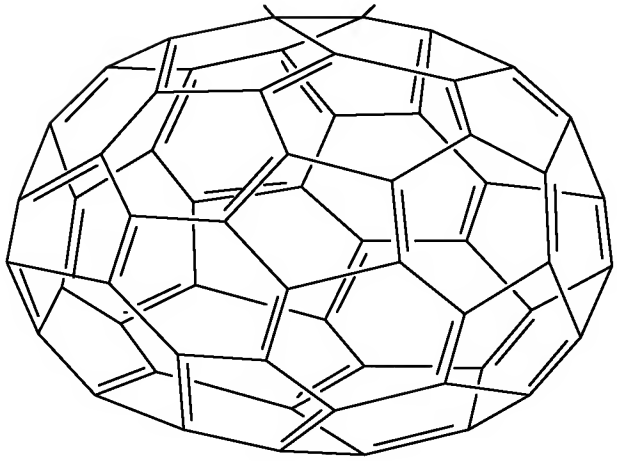
RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)

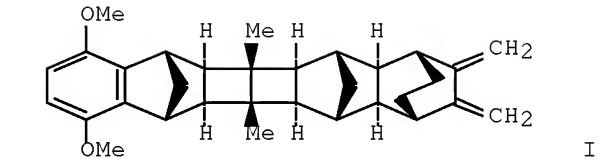
PAGE 1-A



PAGE 2-A



L4 ANSWER 109 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI



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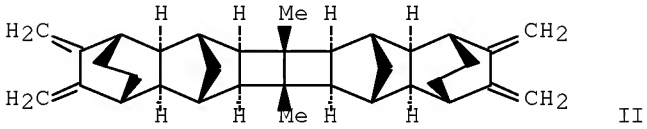


II

AB Diels-Alder reaction of C60 with 1,3-dienes, e.g. I, affords "ball-and-chain" systems bearing two chromophores linked via a rigid, hybrid saturated polynorbornane-bicyclo[2.2.0]hexane ("norbornylogous") hydrocarbon bridge. Analogous reaction with the bis(diene) II affords a soluble dumbbell system bearing two C60 chromophores. The norbornylogous bridge is a strong mediator of electron and energy transfer via a through-bond coupling mechanism. The X-ray structure of a dimethoxybenzene-bridge-C60 system reveals favorable self-complementarity manifested by the unusual packing structure in the crystal. Mol. mechanics, semiempirical, and ab initio conformational analyses of some of these compds. (MM2, Sybyl, CVFF, AM1, HF/3-21G) were performed to quantify their ability to adopt two nondegenerate boat conformations, i.e., extended and folded conformers, as well as their kinetic barrier of interconversion. A similar treatment of the C60-bridge-C60 system prepared from II revealed unusual preference for the folded-folded conformer (18.9 kcal/mol at CVFF level), which was not reproduced by the AM1 method (0.11 kcal/mol). The reduction potentials of the systems were about 0.1-0.5 V more neg. than C60, and the third reduction potential (E3) of a 6-bond system was 0.14 V more neg. than the corresponding wave for a 10-bond system.

AN 1996:401828 CAPLUS Full-text

DN 125:194922

TI Synthesis of a Variety of Bichromophoric "Ball-and-Chain" Systems Based on Buckminsterfullerene (C60) for the Study of Intramolecular Electron and Energy Transfer Processes

AU Lawson, James M.; Oliver, Anna M.; Rothenfluh, Daniel F.; An, Yi-Zhong; Ellis, George A.; Ranasinghe, Millagahamada G.; Khan, Saeed I.; Franz, Andreas G.; Ganapathi, Padma S.; et al.

CS School of Chemistry, University of New South Wales, Sydney, 2052, Australia

SO Journal of Organic Chemistry (1996), 61(15), 5032-5054
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

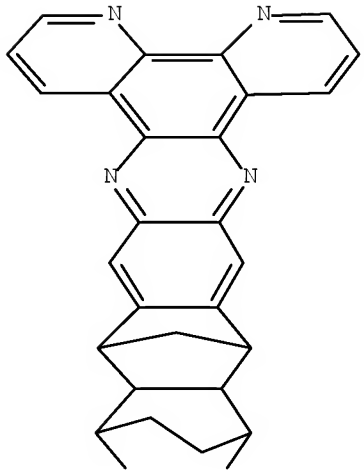
LA English

IT 180396-42-3P 180396-49-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(intramol. electron and energy transfer in bichromophoric ball-and-chain systems based on buckminsterfullerene)

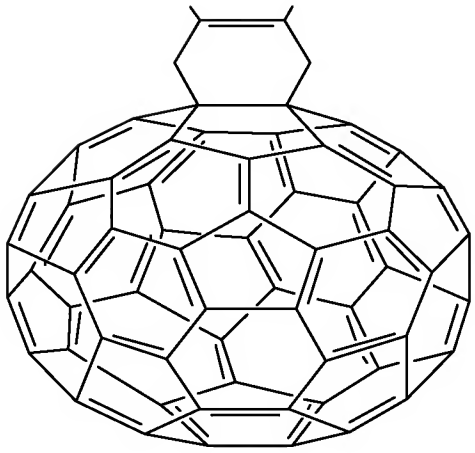
RN 180396-42-3 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',2':14,15][12,17]ethano[11,18]methanoanthra[2,3-i]dipyrido[3,2-a:2',3'-c]phenazine, 11',11'a,12',13',16',17',17'a-octahydro-, (11'α,11'aβ,12'α,17,α,17'aβ,18'.alpha.)- (9CI) (CA INDEX NAME)

PAGE 1-A



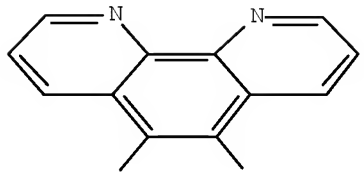
PAGE 2-A



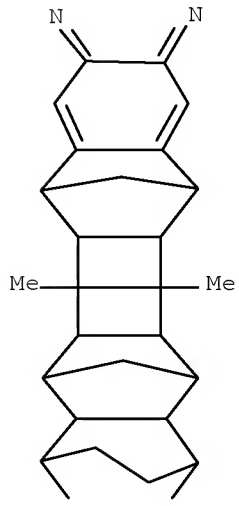
RN 180396-49-0 CAPLUS

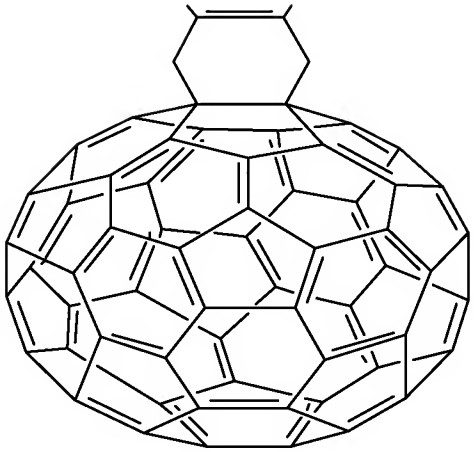
CN [5,6]Fullereno-C60-Ih-[1',2':15,16][13,18]ethano[11,20:12,19]dimethanoanthra[2''',3''':3'',4'']cyclobuta[1'',2'':3',4']cyclobuta[1',2':4,5]benzo[1,2-i]dipyrido[3,2-a:2',3'-c]phenazine, 11',11'a,11'b,11'c,12',12'a,13',14',17',18',18'a,19',19'a,19'b,19'c,20'-hexadecahydro-11'b,19'b-dimethyl-, (11'α,11'aβ,11'bα,11'cβ,12'α,12'aβ,13'.alpha.,18'α,18'aβ,19'α,19'aβ,19'bα,19'cβ,20'a)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A





L4 ANSWER 110 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB An iterative design process involving the synthesis and structural analyses of five polypeptides patterned after the zinc finger domains is described. This process has led to the development of a metal-independent 23-reside folded ββα peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthrol-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is 0.9 ± 0.3 Å. Anal. of the resulting structure reveals that the α-helix and β-hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β-hairpin formation; a control peptide, in which the β-turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text
DN 124:317843

TI Economy in Protein Design: Evolution of a Metal-Independent ββα Motif Based on the Zinc Finger Domains

AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Journal of the American Chemical Society (1996), 118(13), 3073-81
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English

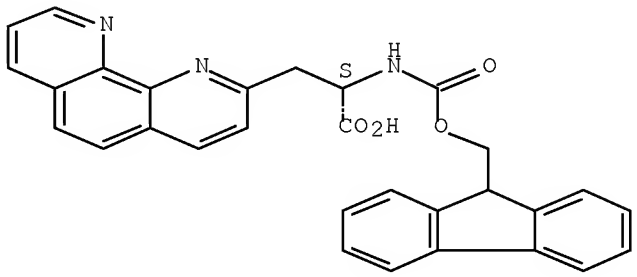
IT 176435-49-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and conformation of metal-free zinc finger peptide model)

RN 176435-49-7 CAPLUS

CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-

ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L4 ANSWER 111 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB A series of receptors were prepd. all contg. two adenine binding sites linked by various spacers. Their ability to act as templates in the coupling of two adenine derivs., an active ester and an amine, in $CHCl_3$ was evaluated. The accelerations varied from none to 700-fold. Binding studies of the coupling product with these templates confirmed involvement of both binding sites. When the spacer was a 1,10-phenanthroline unit, an efficient hydrolysis reaction of the active ester was observed Another series of receptors were prepared containing one adenine receptor and various polar functional groups. The mols. were evaluated as catalysts in the coupling of an adenine-derived active ester and n-butylamine. The orientation as well as the nature of the functional group greatly influenced the coupling rate. A carboxylate group was most effective, accelerating the intracomplex reaction 250-fold.

AN 1995:653636 CAPLUS Full-text

DN 123:256408

TI Passive template effects and active acid-base involvement in catalysis of organic reactions

AU Pieters, Roland J.; Huc, Ivan; Rebek, Julius, Jr.

CS Dep. Chemistry, Massachusetts Inst. Technol., Cambridge, MA, 02139, USA

SO Chemistry--A European Journal (1995), 1(3), 183-92 Published in: Angew. Chem., Int. Ed. Engl., 34(11)
CODEN: CEUJED; ISSN: 0947-6539

PB VCH

DT Journal

LA English

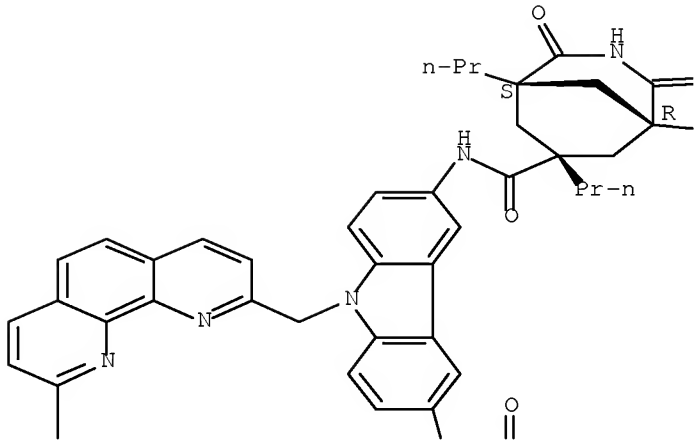
IT 168127-43-3P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and template effect of adenine-containing receptors)

RN 168127-43-3 CAPLUS

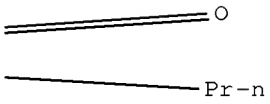
CN 3-Azabicyclo[3.3.1]nonane-7-carboxamide, N,N',N'',N'''-[1,10-phenanthroline-2,9-diylbis(methylene-9H-carbazole-9,3,6-triyl)]tetrakis[2,4-dioxo-1,5,7-tripropyl-, (all-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

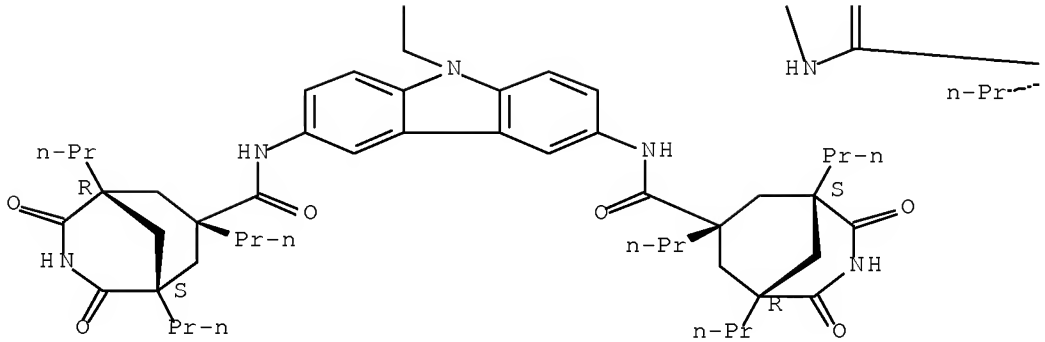
PAGE 1-A

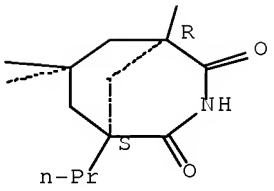


PAGE 1-B

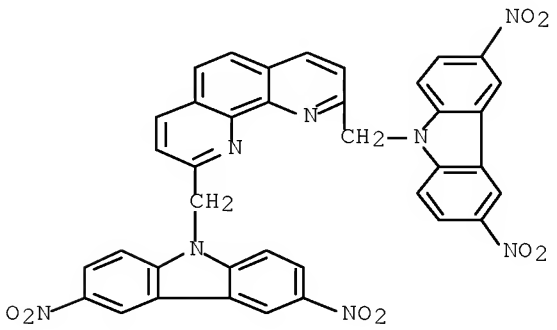


PAGE 2-A





IT 168127-48-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and template effect of adenine-containing receptors)
RN 168127-48-8 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis[(3,6-dinitro-9H-carbazol-9-yl)methyl]- (CA INDEX NAME)



L4 ANSWER 112 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB A three-component complex consisting of a coordinating ring, a copper(I) center and a difunctionalized fragment threaded inside the ring is reacted with a C60 derivative to afford a soluble rotaxane with two fullerenes as stoppers in 15% yield.
AN 1995:510099 CAPLUS Full-text
DN 122:305209
TI A copper(I)-complexed rotaxane with two fullerene stoppers
AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre
CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
SO Journal of the Chemical Society, Chemical Communications (1995), (7), 781-2
CODEN: JCCCAT; ISSN: 0022-4936
PB Royal Society of Chemistry
DT Journal
LA English
IT 163236-30-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(copper(I)-complexed rotaxane with two fullerene stoppers)

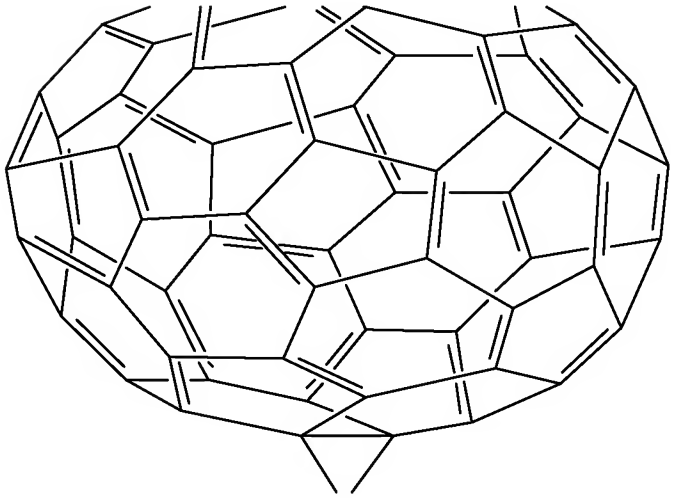
RN 163236-30-4 CAPLUS
CN Copper(1+), [2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline-κN1,κN10](8,9,11,12,14,15,17,18-octahydro-2,29:3,6:20,23:24,26-tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine-κN1,κN25)-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

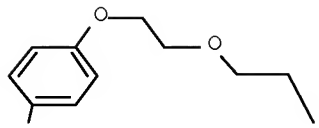
CM 1

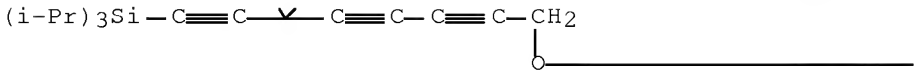
CRN 162994-22-1
CMF C210 H90 Cu N4 O7 Si2
CCI CCS

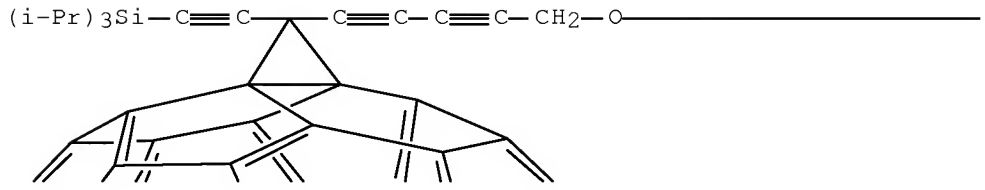
PAGE 1-A

PAGE 2-A

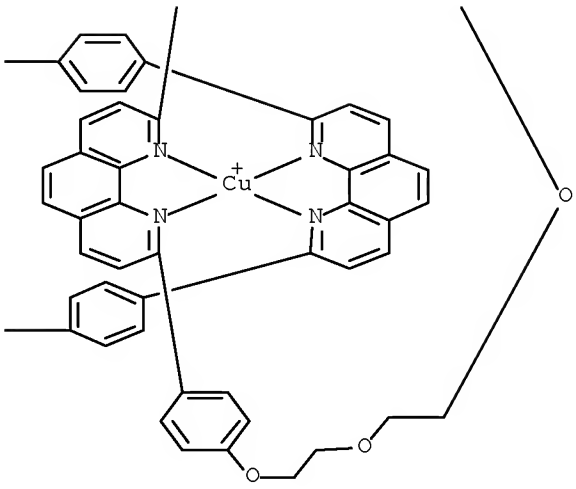




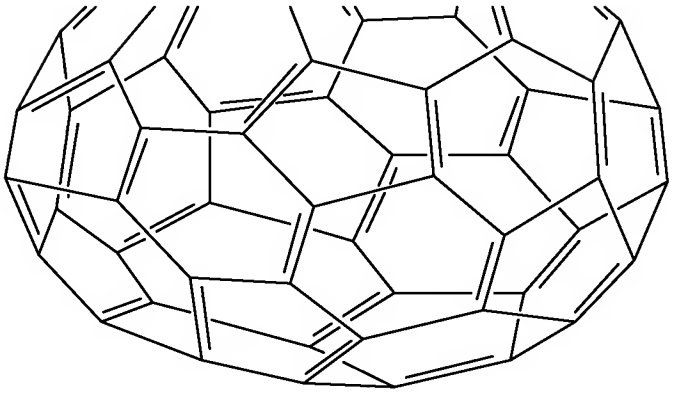




PAGE 3-B

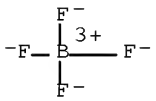


PAGE 4-A



CM 2

CRN 14874-70-5
CMF B F4
CCI CCS



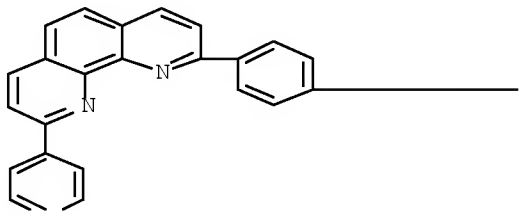
IT 163236-31-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 163236-31-5 CAPLUS

CN 2,29:3,6:20,23:24,26-Tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine, 8,9,11,12,14,15,17,18-octahydro-, compd. with 2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

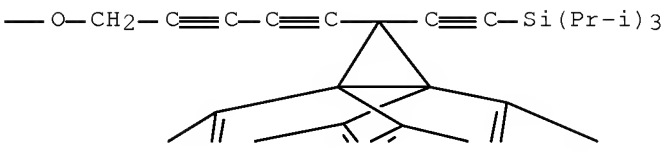
CM 1

CRN 162994-21-0
CMF C178 H60 N2 O2 Si2

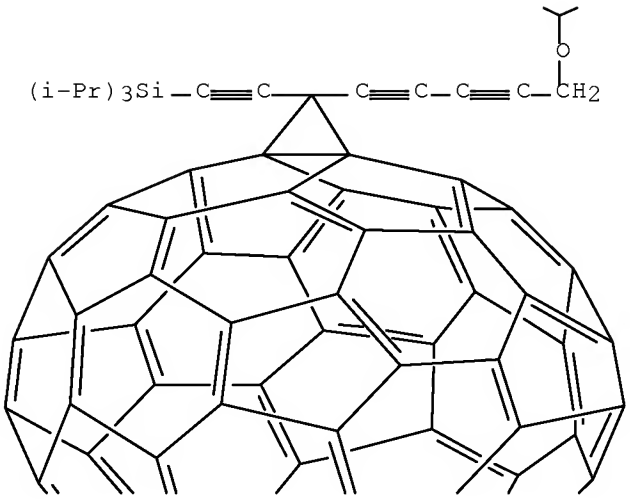
PAGE 1-A



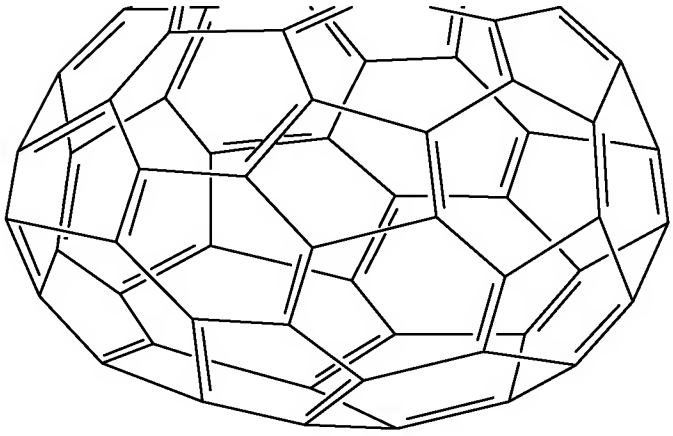
PAGE 1-B



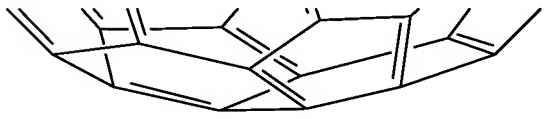
PAGE 2-A



PAGE 2-B

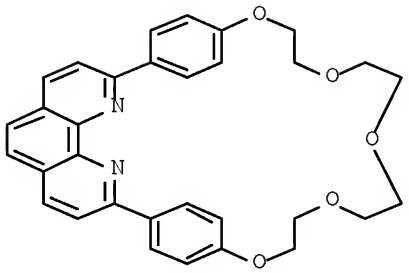


PAGE 3-A



CM 2

CRN 89333-98-2
CMF C32 H30 N2 O5



L4 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

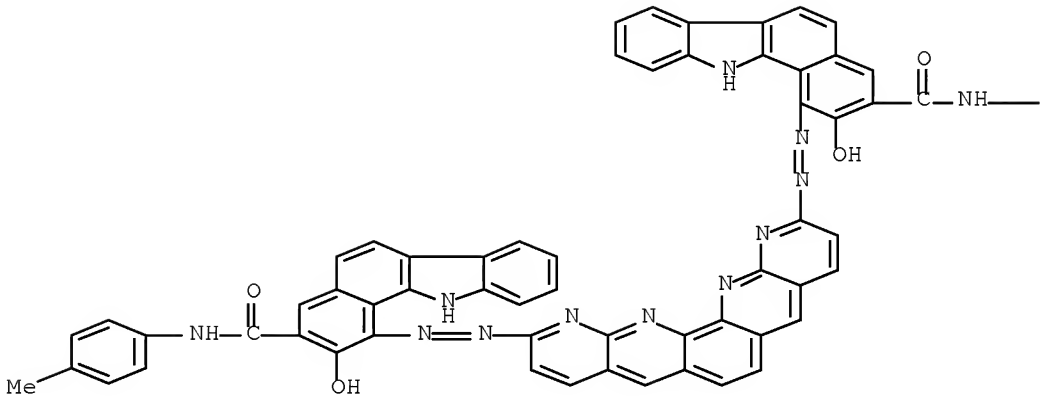
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The photoreceptors comprise a conductive substrate with a coating of a photosensitive layer containing ≥1 of dipyridophenathroline-type bisazo compds. I, II, and III (A = coupler residue; R1, R2 = H, halo, alkyl, aryl) as a charge-generating agent. The photoreceptors show high photosensitivity and good durability. Thus, an Al vapor-deposited polyester film was coated with a composition containing I (A = IV) and 1-phenyl-3-(p-diethylaminostyryl)-5-(p-diethylaminophenyl)-2-pyrazoline to give a photoreceptor.
AN 1995:169535 CAPLUS Full-text
DN 122:118927
TI Electrophotographic photoreceptors using dipyridophenanthroline-type bisazo compound as charge-generating agent
IN Yamazaki, Mikio; Amano, Masayo; Kosho, Noboru
PA Fuji Electric Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

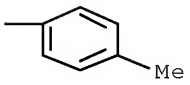
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06202356	A	19940722	JP 1992-347401	19921228
			JP 1992-347401	19921228

IT 160771-38-0 160771-42-6
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor using dipyridophenanthroline bisazo compound as charge-generating agent)
RN 160771-38-0 CAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[dipyrido[2,3-b:3',2'-j][1,10]phenanthroline-2,11-diylbis(azo)]bis[2-hydroxy-N-(4-methylphenyl)-(9CI) (CA INDEX NAME)

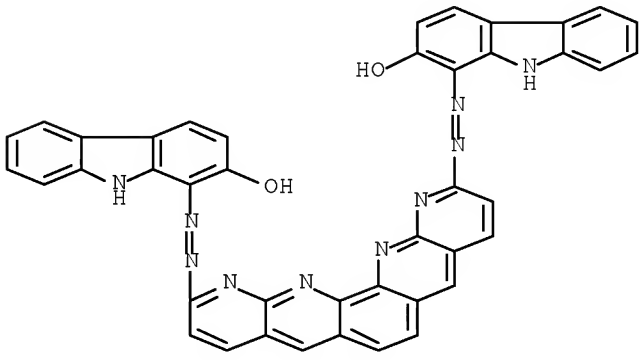
PAGE 1-A



PAGE 1-B



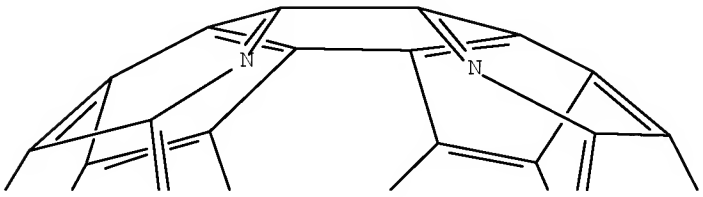
RN 160771-42-6 CAPLUS
CN 9H-Carbazol-2-ol, 1,1'-[dipyrido[2,3-b:3',2'-j][1,10]phenanthroline-2,11-diylbis(azo)]bis- (9CI) (CA INDEX NAME)



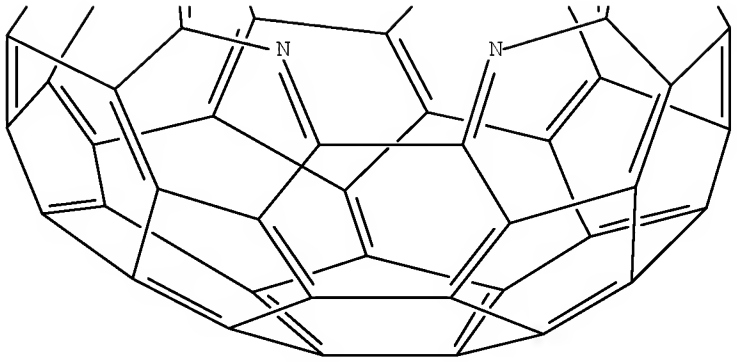
L4 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
AB Substituting C atoms of fullerenes by heteroatoms and vacancies will lead to new and yet unknown spherically-shaped mols. termed heterofullerenes. The enormous structural diversity of these mols. is examined and their structural, electronic, and thermochem. properties are predicted using semiempirical computations. Computational results for complexes with ions lead to the hypothesis that these mols. behave like microscopic Faraday cages in which the

electrons concentrate on the outer side of the sphere. It is predicted that some of these heterofullerenes are structurally and electronically similar to phthalocyanines and related mols. but offer many addnl. advantages. Potential uses such as adding heterofullerenes to fullerene materials, as superior starting materials for the fabrication of diamonds, as catalysts in hydrogenation reactions, as components of materials dominated until now by phthalocyanines, etc., are discussed. Simple synthetic routes to these compds. that are based on minor alterations of existing methods for fullerene production are proposed. Thermochem. calcns. show that the most promising possibility consists of using metal cyanide/graphite composite target rods instead of pure graphite rods as in a conventional fullerene synthesis.

AN 1993:427631 CAPLUS Full-text
DN 119:27631
TI Heterofullerenes: structure and property predictions, possible uses and synthetic proposals
AU Karfunkel, Heinrich R.; Dressler, Thomas; Hirsch, Andreas
CS Ciba-Geigy AG, Basel, CH-4002, Switz.
SO Journal of Computer-Aided Molecular Design (1992), 6(5), 521-35
CODEN: JCADEQ; ISSN: 0920-654X
DT Journal
LA English
IT 147270-26-6D, Tetraaza[5,6,12]fullerene-C58, metal complexes
RL: PRP (Properties)
(MO calcns. of, as models for truncated tetrazafullerenes)
RN 147270-26-6 CAPLUS
CN 2,5,8,10-Tetraaza-1,9-dinor[5,6]fullerene-C60-Ih (CA INDEX NAME)

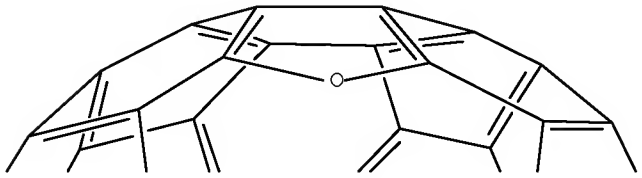


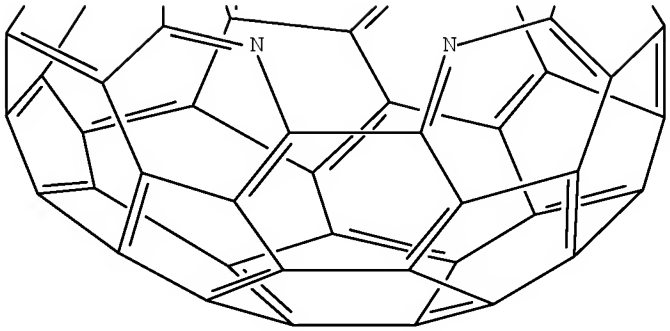
PAGE 2-A



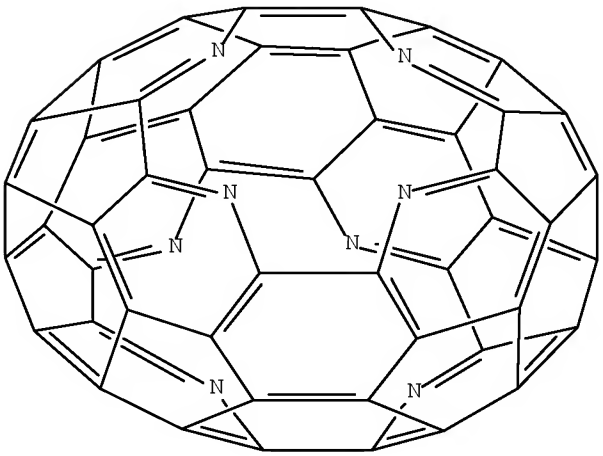
IT 147270-28-8P, Oxadiaza[5,6,11]fullerene-C59 147321-16-2P
, Octaaza[5,6,12]fullerene-C56 147321-17-3P,
Tetraoxatetraaza[5,6,12]fullerene-C56 147350-88-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(structure and property predictions, possible uses, and preparation of, MO and mol. mech. calcns. and)
RN 147270-28-8 CAPLUS
CN 9-Oxa-2,5-diaza-1-nor[5,6]fullerene-C60-Ih (CA INDEX NAME)

PAGE 1-A

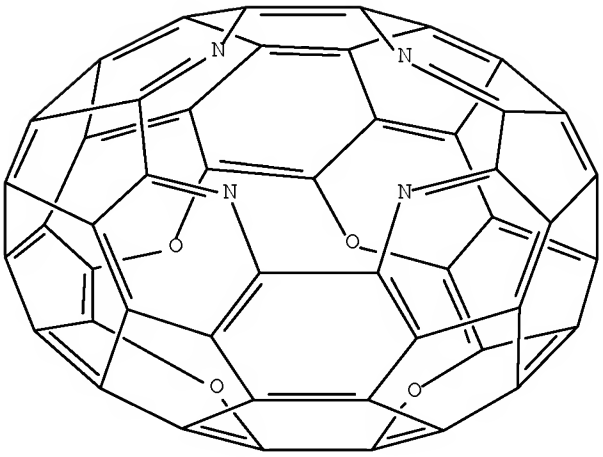




RN 147321-16-2 CAPLUS
CN 2,5,8,10,51,53,56,59-Octaaza-1,9,52,60-tetranor[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)

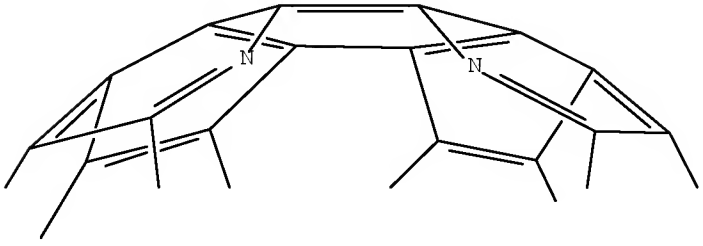


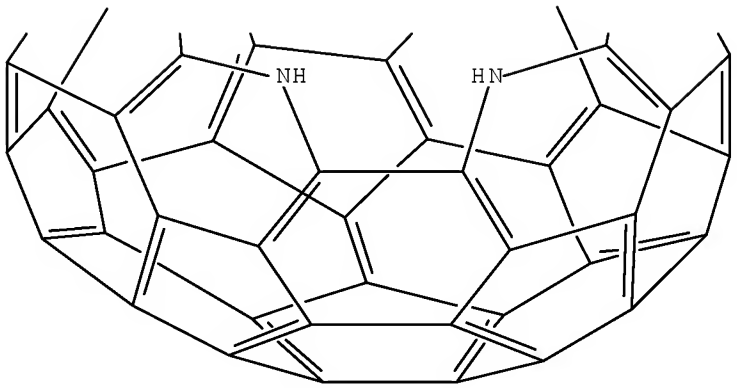
RN 147321-17-3 CAPLUS
CN 2,5,8,10-Tetraoxa-51,53,56,59-tetraaza-1,9,52,60-tetranor[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)



RN 147350-88-7 CAPLUS
CN 2,5,8,10-Tetraaza-1,9-dinor[5,6]fullerene-C60-Ih, 2,5-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A





L4 ANSWER 115 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

AB The title compd. is monoclinic, space group P21/n, with a 9.101(2), b 20.681(3), c 11.101(1) Å, and β 93.55(2)°; Z = 2, dc = 1.55, R = 0.039 for 3064 reflections. Atomic coordinates are given. Every Cu atom is square pyramidally coordinated by 3 O atoms and 2 N atoms. The 2 Cu atoms are connected to 2 bridging OH O atoms to form a CuII binuclear unit with a Cu2O2 core. The binuclear unit as a whole possesses a center of symmetry with a Cu...Cu distance of 3.016 Å.

AN 1992:437256 CAPLUS Full-text

DN 117:37256

TI Structure of a copper complex of an α-hydroxylated acid: bis[μ-(9-hydroxy-9H-fluorene-9-carboxylato-O,μ-O')]-bis(1,10-phenanthroline)copper(II)]

AU Liu, Shixiong; Yu, Yunpeng

CS Inst. Struct. Chem., Fuzhou Univ., Fuzhou, 350002, Peop. Rep. China

SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(4), 652-5
CODEN: ACSCEE; ISSN: 0108-2701

DT Journal

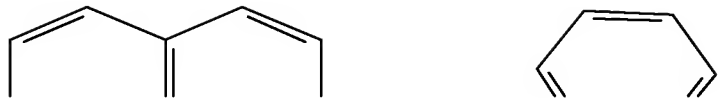
LA English

IT 142213-84-1
RL: PRP (Properties)
(crystal structure of)

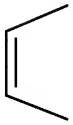
RN 142213-84-1 CAPLUS

CN Copper, bis[μ-[9-hydroxy-9H-fluorene-9-carboxylato(2-)]]bis(1,10-phenanthroline-N1,N10)di-, dihydrate, stereoisomer (9CI) (CA INDEX NAME)

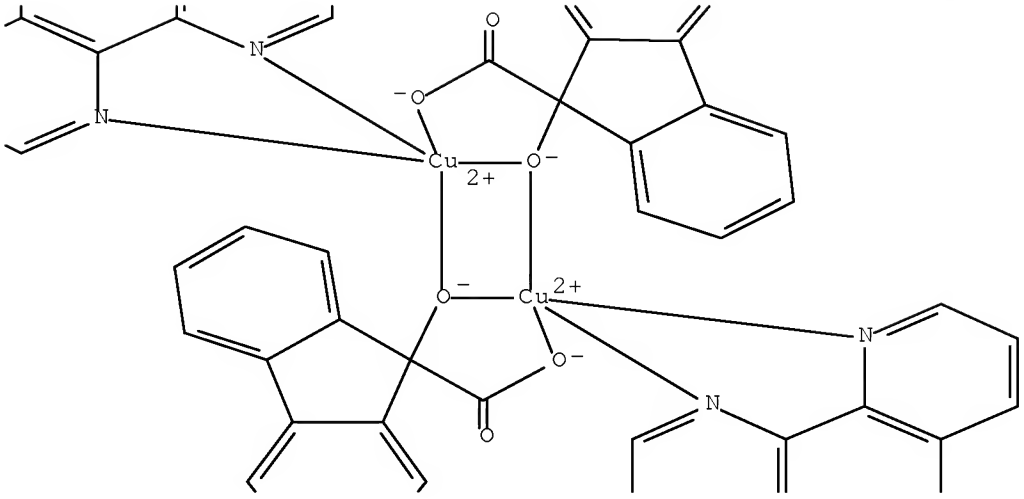
PAGE 1-B



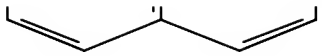
PAGE 2-A



PAGE 2-B

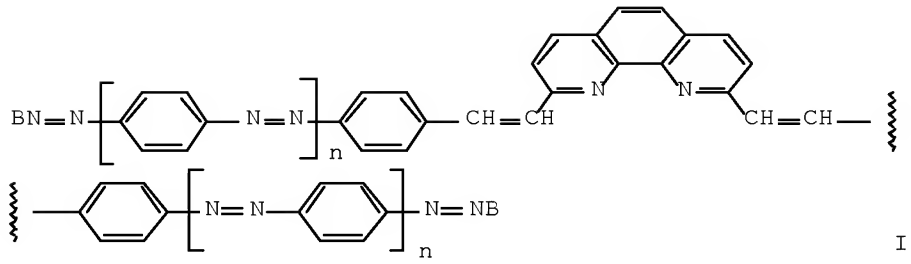


●2 H_2O



L4 ANSWER 116 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI



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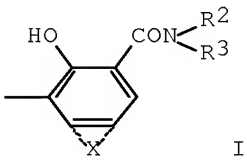
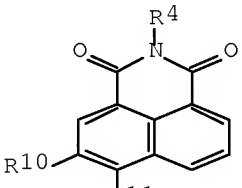
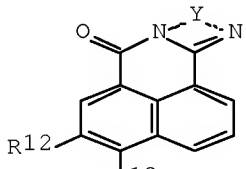


II



III



IV

AB A photoconductive layer, which contains an azo deriv. I [n = 0, 1; B = II, III, IV (X = moiety to form a polycyclic conjugated ring or heterocyclic ring; R2, R3 = H, alkyl, aralkyl, aryl, group to form a heterocyclic ring; when R2 is H, R3 can be N:CR6R7 or NR8R9; R4 = alkyl, aralkyl, aryl; Y = divalent aromatic hydrocarbon moiety, heterocyclic moiety; R6-R7 = H, alkyl, aryl, heterocyclyl, cyclic hydrocarbon group; R8, R9 = R2 ; in R10-R11 and R12-R13 = one of them is OH and the other one is bond)], is image-wise exposed with ≥20 lx-s light to form an optical memory. The memory formation is based on optical memory effect, which allows to make multiple copies with single exposure. Image quality of 100th copy was the same as that of 1st copy.

AN 1990:108494 CAPLUS Full-text

DN 112:108494

TI Method for memory formation on the electrophotographic photoreceptor

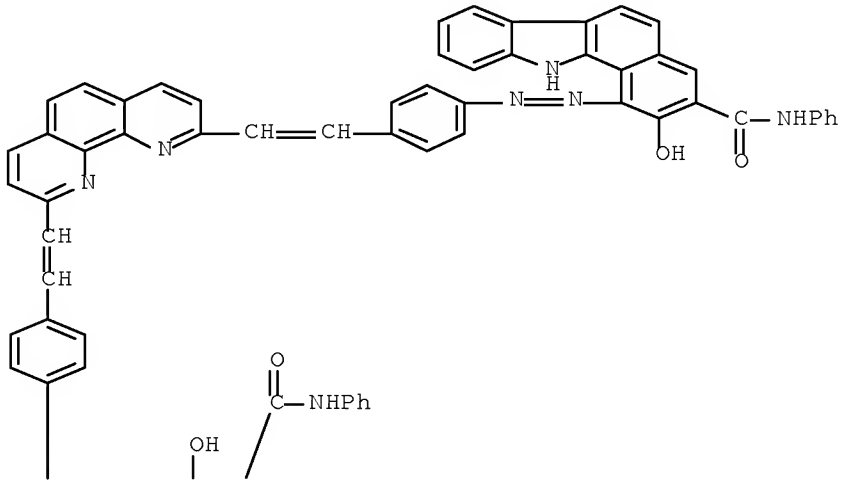
IN Ito, Masayuki; Takada, Masakazu; Ueda, Takamasa

PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

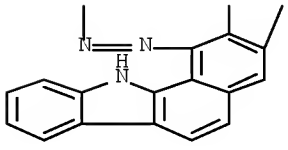
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01161355	A	19890626	JP 1987-321918	19871218
			JP 1987-321918	19871218

IT 122296-62-2 125378-32-7
RL: USES (Uses)
(in electrophotog. photoreceptor with optical memory)
RN 122296-62-2 CAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

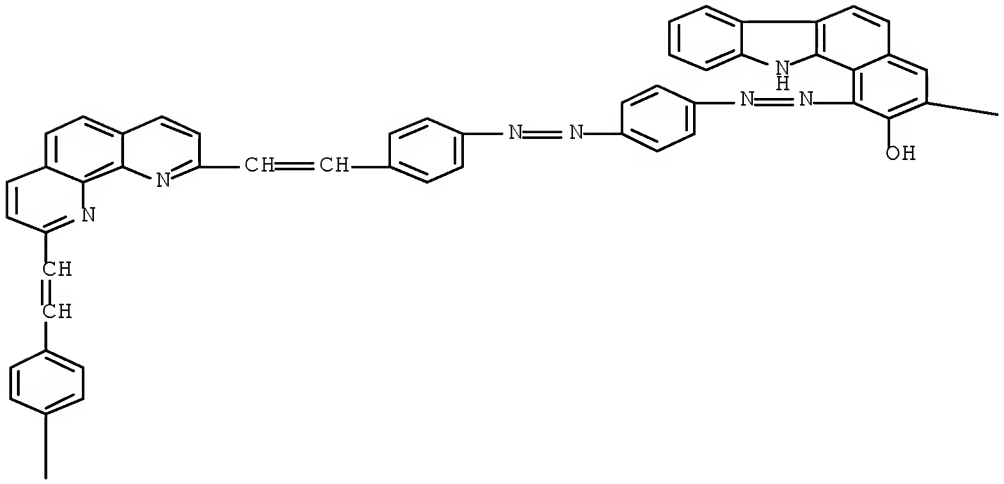


PAGE 2-A

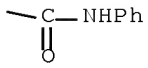


RN 125378-32-7 CAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

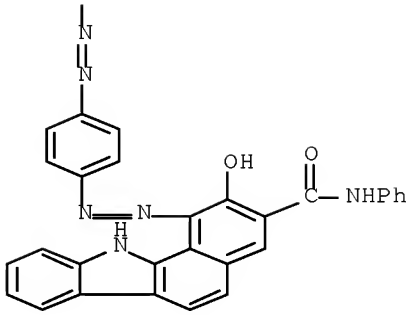
PAGE 1-A



PAGE 1-B



PAGE 2-A



L4 ANSWER 117 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN

GI For diagram(s), see printed CA Issue.

AB The title toner contains bisazo dyes of the structure I (A = arom. heterocyclyl containing 2 N-atoms; B = a coupler group of the structure II, III, IV, V, VI, or VII; Z = a group forming aromatic C or heterocyclic rings; G = (substituted) carbamoyl, sulfamoyl; R1 = alkyl, amino, carbamoyl, (esterified) carboxy, CN; M = aryl; R2, R3 = alkyl, aralkyl, aryl; Y = an aromatic hydrocarbylene, a divalent N-containing group), dispersed in thermoplastic resins. This toner, for an electrophotog. method excluding the

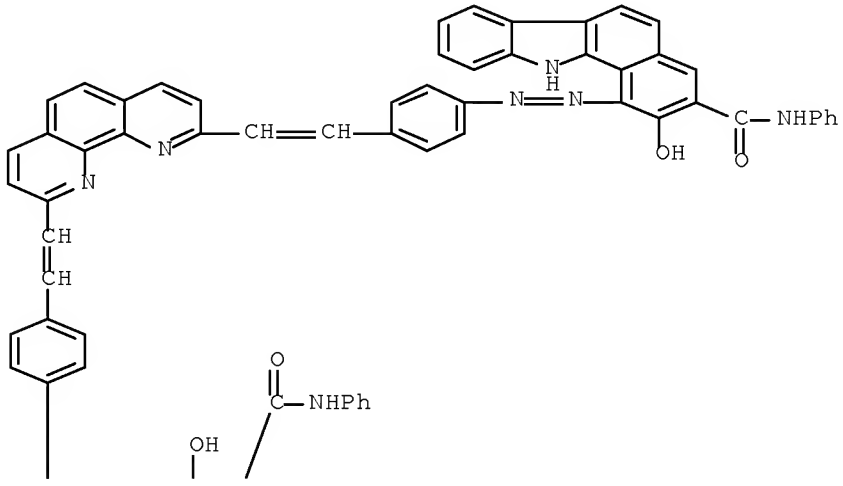
use of the usual photoconductors, has high photosensitivity, dispersibility, and thermal stability. Thus, a photoconductive toner was prepared from SBM73 (styrenic acrylic polymer), the bisazo compound VIII, p-diethylaminobenzaldehyde phenylhydrazone, and Viscol 550P (polyethylene-polypropylene). This toner spread on an bronze plate was charged by corona discharge, imagewise exposed, a paper receptor superposed thereon, and then oppositely charged to transfer the image onto the paper. A clear blue-purple image was obtained by thermal fixing.

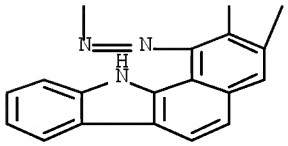
AN 1989:564179 CAPLUS Full-text
DN 111:164179
TI Photoconductive electrophotographic toner
IN Yasuno, Masahiro; Takada, Masakazu; Ueda, Hideaki
PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01079757	A	19890324	JP 1987-238390	19870921
			JP 1987-238390	19870921

IT 122296-62-2
RL: USES (Uses)
(electrophotog. photoconductive toner containing charge-generating agent from, preparation of)
RN 122296-62-2 CAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A





L4 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2007 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Electrophotog. photoreceptors have on a conductive support a photoconductive layer containing, as a charge carrier-generating agent, a bisazo compound of the formula (RN:N-p-C6H4CH:CH)2Z [I; R = a coupler residue selected from II [X = (substituted) aromatic hydrocarbon ring or heterocyclic ring; R1 = (substituted) carbamoyl or sulfamoyl], III [R2 = H, (substituted) aryl, amino, or carbamoyl, carboxyl or its ester, CN; R3 = (substituted) aryl], IV, V [R4, R5 = (substituted) alkyl or aralkyl, aryl], VI and VII (X1 = divalent aromatic hydrocarbon, divalent ring having N); Z = VIII, IX (R6 = H, halo, alkyl, alkoxy, CN, Ph). The coating solution of the layer exhibits good dispersibility, and the photoreceptors show good sensitivity, red color-reproducibility, and cyclicability. Thus, an Al-deposited polyester film was coated with a composition containing I (R = X; Z = VIII) and Vylon 200 (polyester resin) and overcoated with a composition containing a hydrazone and K-1300 (polycarbonate resin).

AN 1989:505765 CAPLUS Full-text
DN 111:105765
TI Electrophotographic photoreceptors containing bisazo pigment as charge carrier-generating agent
IN Takada, Masakazu; Ueda, Takamasa; Ito, Masayuki; Mikasa, Hiroko; Hirashima, Tsunesuke; Yamamoto, Soichi; Ishino, Yoshio; Ono, Toshinobu
PA Minolta Camera Co., Ltd., Japan; Osaka, City of
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 01063971	A	19890309	JP 1988-34592		19880216
				JP 1987-126137	A1	19870522
	JP 01063972	A	19890309	JP 1988-34593		19880216
				JP 1987-126137	A1	19870522

PATENT FAMILY INFORMATION:
FAN 1990:207918

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 01297652	A	19891130	JP 1988-127495		19880525
	US 4945021	A	19900731	US 1989-308629		19890210
				JP 1988-34593	A	19880216
				JP 1988-127495	A	19880525
				JP 1988-169379	A	19880707

				JP 1988-271899	A 19881027

FAN 1990:488242

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02019854	A	19900123	JP 1988-169379	19880707
US 4945021	A	19900731	US 1989-308629	19890210
			JP 1988-34593 A	19880216
			JP 1988-127495 A	19880525
			JP 1988-169379 A	19880707
			JP 1988-271899 A	19881027

FAN 1990:581400

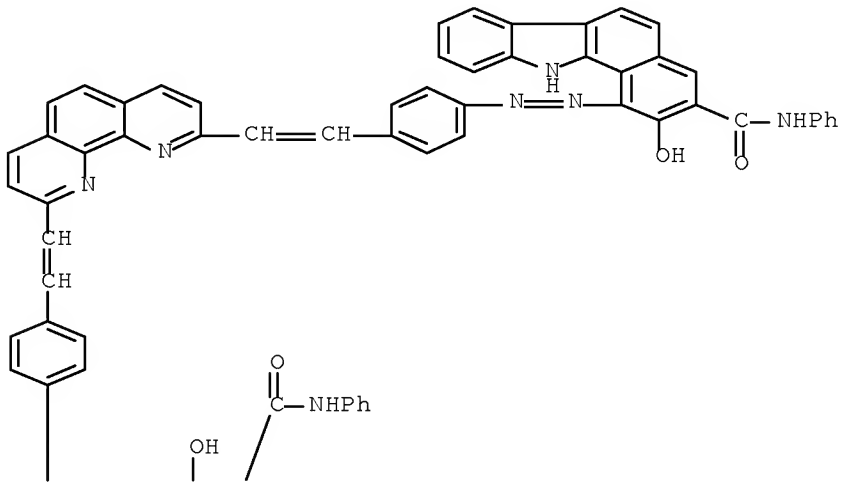
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02118580	A	19900502	JP 1988-271899	19881027
US 4945021	A	19900731	US 1989-308629	19890210
			JP 1988-34593 A	19880216
			JP 1988-127495 A	19880525
			JP 1988-169379 A	19880707
			JP 1988-271899 A	19881027

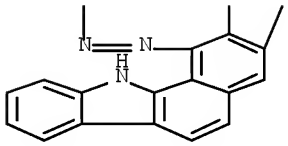
IT 122296-62-2
RL: USES (Uses)
(electrophotog. photoreceptor containing charge carrier-generating agent from)

RN 122296-62-2 CAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[1,10-phenanthroline-2,9-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A





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L2              11 S L1
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L4             118 S L3

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L5             48 L4 AND PY<2003

=> d abs fbib hitstr 1-20

L5   ANSWER 1 OF 48  CAPLUS  COPYRIGHT 2007 ACS on STN
AB    The title device comprises a thin film by stacking an org. layer contg. at
      least an organic luminous layer and an electronic transporting layer formed
      from an organic compound with mol. weight above 400 on the first electrode
      which was formed on the baseplate, and the second electrode on the formed thin
      layer.  Part of the electronic transporting layer is doped by donor impurity,
      the above organic compound possibly has the chelate coordinated side of donor
      impurity.  The title device has high radiance efficiency, low drive voltage,
      and high durability.
AN   2002:925575  CAPLUS Full-text
DN   138:30828
TI   Organic electroluminescence devices
IN   Takano, Akiko; Tominaga, Takeshi; Asuka, Noboru
PA   Toray Industries, Inc., Japan
SO   Jpn. Kokai Tokkyo Koho, 10 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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PI   JP 2002352961        A     20021206    JP 2001-157544          20010525 <--
                                           JP 2001-157544          20010525
IT   252878-73-2
     RL: DEV (Device component use); USES (Uses)
        (organic electroluminescence devices)
RN   252878-73-2  CAPLUS
CN   1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis-  (CA
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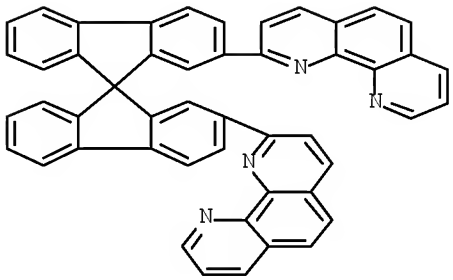
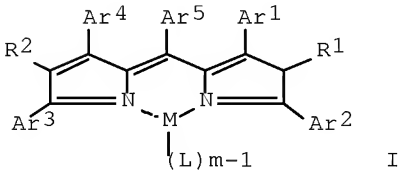
INDEX NAME)



L5 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



I

AB Pyrromethene metal complexes are described by the general formula I (R1, R2, and each L = independently selected H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halogen, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and fused aromatic and alicyclic rings formed from Ar1-4 and L; M + a metal having a valence of m selected from boron, beryllium, magnesium, chromium, iron, nickel, copper, zinc, and platinum; and Ar1-5 = independently selected optionally substituted aryl groups with the proviso that any of Ar1-4, together with an adjacent group selected from R1, R2 and the or each group L may form a fused aromatic or alicyclic ring). Light-emitting devices comprising ≥1 of a diketopyrrolo[3,4-c]pyrrole derivative and an organic fluorescent material having a fluorescent peak wavelength in the range 580-720 nm; and a light-emitting device composition containing I are also described.
AN 2002:831834 CAPLUS Full-text
DN 137:343709
TI Pyrromethene metal complexes and light emitting device composition and light emitting devices using the same
IN Murase, Seiichiro; Tominaga, Tsuyoshi; Kohama, Akira
PA Toray Industries, Inc., Japan
SO Eur. Pat. Appl., 54 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	EP 1253151	A1	20021030	EP 2002-252947		20020425 <--
	EP 1253151	B1	20050112			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	TW 565604	B	20031211	TW 2002-91107585		20020415
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	JP 2003012676	A	20030115	JP 2002-117229		20020419
	JP 4000893	B2	20071031			
				JP 2001-127311	A	20010425
	US 2003082406	A1	20030501	US 2002-126652		20020422
	US 6805978	B2	20041019			
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	SG 121713	A1	20060526	SG 2002-2483		20020424
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	CN 1390841	A	20030115	CN 2002-124569		20020425
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	AT 286903	T	20050115	AT 2002-252947		20020425
				JP 2001-127311	A	20010425
				JP 2001-158325	A	20010528
	CN 1690162	A	20051102	CN 2005-10071206		20020425
				JP 2001-127311	A	20010425
				CN 2002-124569	A3	20020425
	JP 2003086379	A	20030320	JP 2002-150546		20020524
				JP 2001-158325	A	20010528

OS MARPAT 137:343709

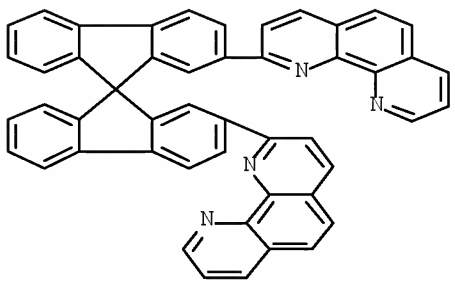
IT 252878-73-2P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(pyrromethene metal complexes and light-emitting device compns. and the devices)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The syntheses, crystal structures, magnetic and photoluminescence properties of dinuclear and mononuclear copper(II) and copper(I) N-carbazolylacetate [N-

carbazolylacetic acid = Hcabo] with different carboxylato coordination modes are reported. Although the carboxylato group has different coordination modes, the same carboxylate ligand binding to copper ion via four coordinating modes is rare. The crystal structure of [Cu2(Cabo)4(DMF)2]·2DMF (1) consists of a sym. dimeric Cu(II) carboxylato paddle-wheel core and oxygen atoms from DMF at the apical positions. Dinuclear [Cu2(Cabo)3(phen)2]ClO4·H2O·C2H 5OH (2) (phen = 1,10-phenanthroline) consists of an unusual dimeric core with two copper atoms bridged by three carboxylates one of which is in the η:η:μ2 bridging mode and the other two are in the rarer monoat. bridging mode. To the authors' knowledge, the present bridging mode was not reported hitherto. The crystal structures of [Cu(Cabo)2phen] and [Cu(Cabo)(PPh3)2] are also reported. Magnetic susceptibilities were measured in the temperature range 2-300 K paddle-wheel copper(II) ions in 1 are strongly coupled antiferromagnetically with 2J = -356.4(6) cm-1, whereas complex 2 shows weak antiferromagnetic interaction with a 2J value of -12.8(4) cm-1. Copper(I) N-carbazolylacetate with strong fluorescence in the solid state as well as high thermal stability was obtained by reduction of the copper(II) N-carbazolylacetate using PPh3 (triphenylphosphine) in DMF solution

AN 2002:722185 CAPLUS Full-text

DN 138:32308

TI Structural diversity and properties of a series of dinuclear and mononuclear copper(II) and copper(I) carboxylato complexes

AU Tian, Yu-Peng; Zhang, Xuan-Jun; Wu, Jie-Ying; Fun, Hoong-Kun; Jiang, Min-Hua; Xu, Zhi-Qiang; Usman, Anwar; Chantrapromma, Suchada; Thompson, Laurence K.

CS Department of Chemistry, Anhui University, Anhui, Hefei, 230039, Peop. Rep. China

SO New Journal of Chemistry (2002), 26(10), 1468-1473
CODEN: NJCHE5; ISSN: 1144-0546

PB Royal Society of Chemistry

DT Journal

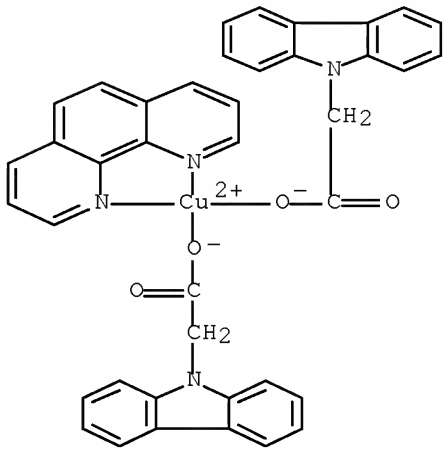
LA English

OS CASREACT 138:32308

IT 478242-61-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure)

RN 478242-61-4 CAPLUS

CN Copper, bis(9H-carbazole-9-acetato-κO9)(1,10-phenanthroline-κN1,κN10)-, (SP-4-2)- (9CI) (CA INDEX NAME)



IT 478242-60-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal structure and magnetic properties)
RN 478242-60-3 CAPLUS
CN Copper(1+), bis[μ-(9H-carbazole-9-acetato-κO9:κO9)][μ-(9H-carbazole-9-acetato-κO9:κO9')]bis(1,10-phenanthroline-κN1,κN10)di-, stereoisomer, perchlorate, compd. with ethanol (1:1), monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 64-17-5
CMF C2 H6 O

$H_3C—CH_2—OH$

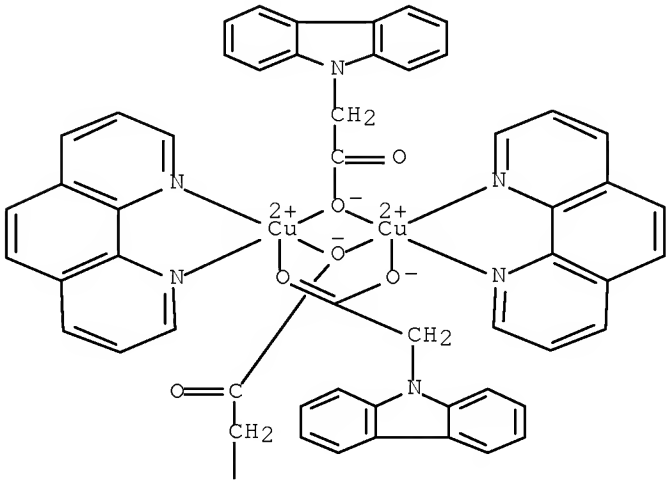
CM 2

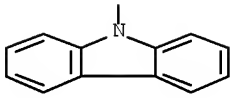
CRN 478242-59-0
CMF C66 H46 Cu2 N7 O6 . Cl O4

CM 3

CRN 478242-58-9
CMF C66 H46 Cu2 N7 O6
CCI CCS

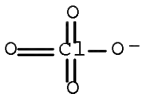
PAGE 1-A





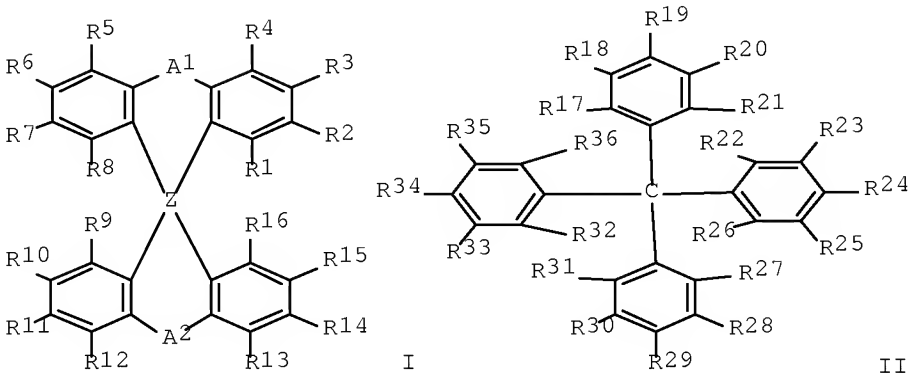
CM 4

CRN 14797-73-0
CMF Cl O4



RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



I II

AB The invention refers to an electroluminescent material comprising at least one of the following: a compound with 1,7-phenanthroline skeletons, a benzoquinoline derivative, a spiro-compound I and a tetraphenylmethane derivative II [A1,2 = single bond, (un)substituted alkyl, ether thioether ketone amino chain, A1 ≠ A2; Z = C or Si; R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings; R17-36 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde,

carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings, wherein at least one of R17-36 is -XAr; X = single bond, -(CH2)n-, O, S, -(Ph)n- or trivalent phosphor oxide; Ar = condensed aromatic or heterocyclic, and when X = trivalent phosphor oxide, Ar = aromatic hydrocarbon or heterocyclic].

AN 2002:408990 CAPLUS Full-text
DN 136:393083
TI Electroluminescent material and component
IN Tominaga, Tsuyoshi; Kitazawa, Daisuke; Makiyama, Aki; Kohama, Akira
PA Toray Industries, Inc., Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
PI	WO 2002043449	A1	20020530	WO 2001-JP10214		20011122	<--
	W: CN, KR, US						
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR						
				JP 2000-357129	A	20001124	
				JP 2001-173610	A	20010608	
	JP 2002222697	A	20020809	JP 2001-357312		20011122	<--
	JP 3899907	B2	20070328				
				JP 2000-357129	A	20001124	
	EP 1341403	A1	20030903	EP 2001-997977		20011122	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR						
				JP 2000-357129	A	20001124	
				JP 2001-173610	A	20010608	
				WO 2001-JP10214	W	20011122	
	TW 572993	B	20040121	TW 2001-90128901		20011122	
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				WO 2001-JP10214	W	20011122	

OS MARPAT 136:393083
IT 252878-73-2
RL: DEV (Device component use); USES (Uses)
(luminescent material and component)
RN 252878-73-2 CAPLUS
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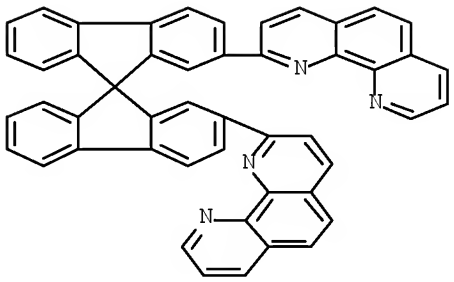
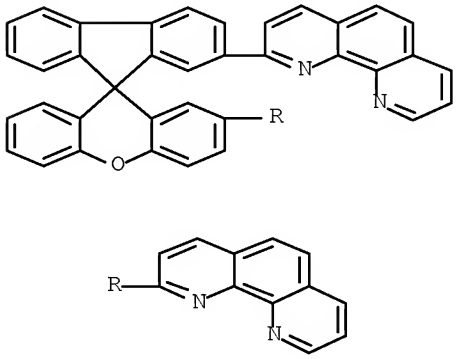


IT 427375-38-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(luminescent material and component)
RN 427375-38-0 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-diyl)bis- (9CI) (CA INDEX NAME)

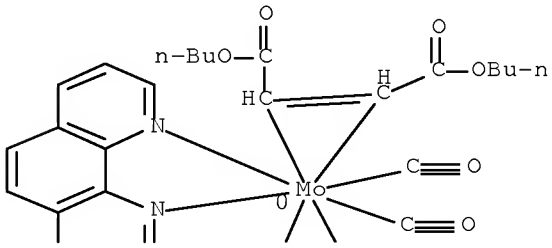


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
AB The crystal structure of molybdenum complex of fullerene Mo(η2-C60)(CO)2(phen)(dbm) (phen = 1,10-phenanthroline, dbm = di-Bu maleate) has been established. The crystal belongs to orthorhombic, space group Pbca with a = 2.5318(5) nm, b = 2.7257(5) nm, c = 1.4577(3) nm, V= 10.059(3) nm3, Z = 8 and RI = 0.0908. In the mol. the coordination geometry of Mo atom is a distorted octahedron with the two CO groups and phen in the equatorial plane and the Mo atom binds in an η2 fashion to C-C bonds of C60 and dbm. The crystal is stable in the air due to nonexistence of solvent mols. in the cell.
AN 2002:322452 CAPLUS Full-text
DN 138:73332
TI The crystal structure of molybdenum complex of [60] fullerene Mo(η2-C60)(CO)2(phen)(dbm)
AU Cui, Peng; Jin, Xianglin; Xie, Xiangjin; Tang, Kaluo
CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China
SO Beijing Daxue Xuebao, Ziran Kexueban (2001), 37(6), 875-879
CODEN: PCTHAP; ISSN: 0479-8023
PB Beijing Daxue Chubanshe
DT Journal

LA English
OS CASREACT 138:73332
IT 198712-81-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of molybdenum fullerene phenanthroline maleate carbonyl complex)
RN 198712-81-1 CAPLUS
CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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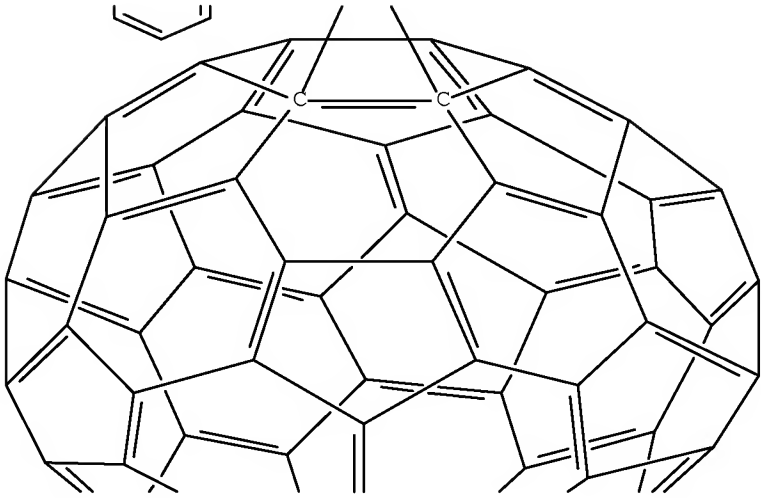
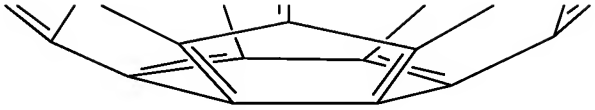
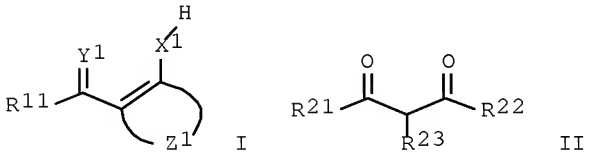




L5 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI

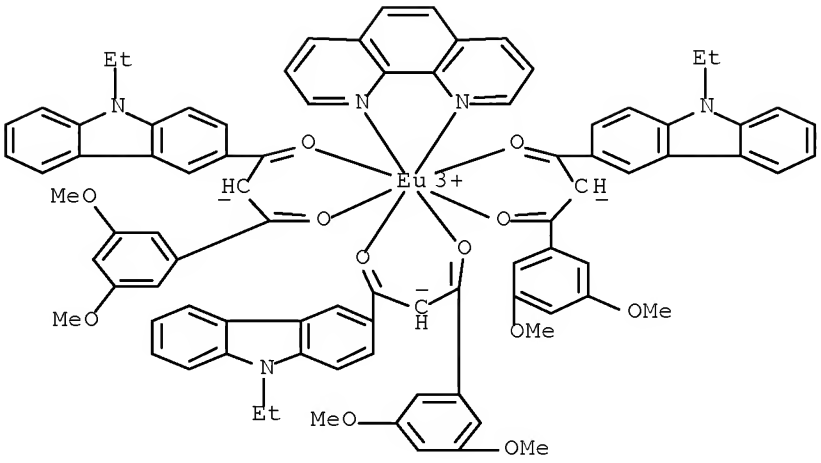


AB The invention refers to an electroluminescent component and color conversion filter comprising I [X1,Y1 = O, S or NR12; R11,12 = H or univalent group; Z1 = aromatic moiety] or R21COC(R22)COCR22 [R21-23 = H or univalent group] as an anion ligand in a rare earth fluorescent complex.

AN 2002:313481 CAPLUS Full-text
DN 136:348060
TI Electroluminescent component and color conversion filter
IN Matsuura, Mitsunobu; Suzurizato, Yoshiyuki; Kita, Hiroshi
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 31 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002124383	A	20020426	JP 2000-316416	20001017 <--
JP 4003388	B2	20071107		
JP 2007227947	A	20070906	JP 2007-81224	20070327
			JP 2000-316416 A3	20001017

IT 417706-87-7
RL: DEV (Device component use); USES (Uses)
(electroluminescent component and color conversion filter)
RN 417706-87-7 CAPLUS
CN Europium, tris[1-(3,5-dimethoxyphenyl)-3-(9-ethyl-9H-carbazol-3-yl)-1,3-propanedionato-κO,κO'](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The synthesis and characterization of several fullerene-based organometallic complexes containing Mo and W, e.g., [M(η2- C60)(CO)2(phen)(dbf)] (M = Mo, W, phen = 1,10-phenanthroline, dbf = di-Bu fumarate) and [Mo(η2-C70)(CO)2(phen)(dbf)] is reported. Electrochem. redox behavior, EPR and optical limiting properties as well as x-ray crystal structures are determined for the complexes.

AN 2002:305219 CAPLUS Full-text

DN 137:295052

TI Syntheses, Structures, and Properties of Novel Molybdenum and Tungsten Complexes of Fullerenes

AU Tang, Kaluo; Jin, Xianglin; Tang, Youqi

CS Institute of Physical Chemistry, Peking University, Beijing, 100871, Peop. Rep. China

SO Physics of the Solid State (Translation of Fizika Tverdogo Tela (Sankt-Peterburg)) (2002), 44(4), 612-614
CODEN: PSOSED; ISSN: 1063-7834

PB MAIK Nauka/Interperiodica Publishing

DT Journal

LA English

OS CASREACT 137:295052

IT 467428-20-2P 467428-23-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

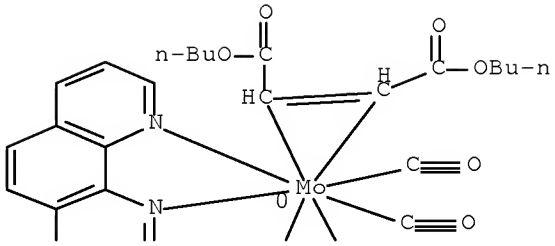
RN 467428-20-2 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][5,6]fullerene-C60-Ih-1,9-diyl(1,10-phenanthroline-κN1,κN10)-, stereoisomer, compd. with benzene (1:2) (9CI) (CA INDEX NAME)

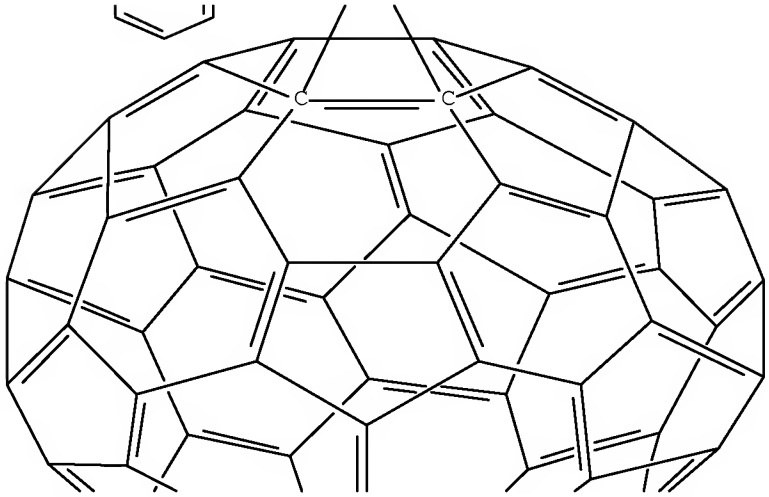
CM 1

CRN 467428-12-2
CMF C86 H28 Mo N2 O6
CCI CCS

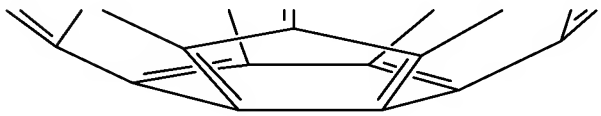
PAGE 1-A



PAGE 2-A



PAGE 3-A



CM 2

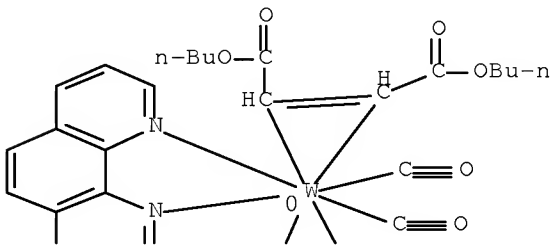
CRN 71-43-2
CMF C6 H6

RN 467428-23-5 CAPLUS

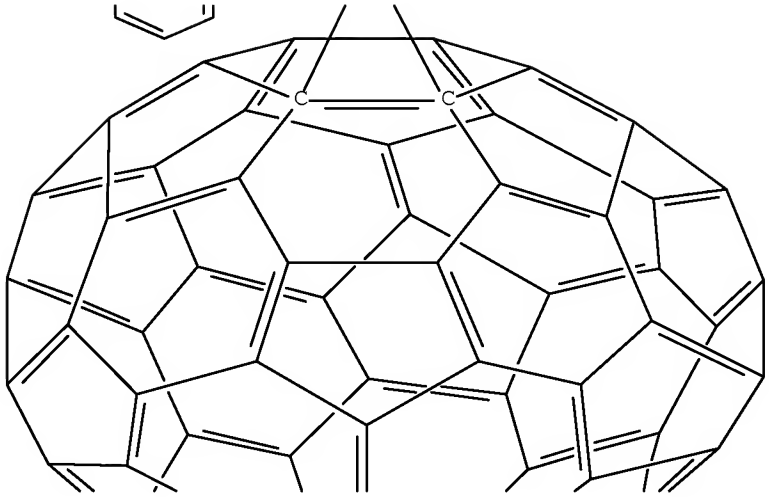
CN Tungsten, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][5,6]fullerene-C60-Ih-1,9-diyl(1,10-phenanthroline-κN1,κN10)-, stereoisomer, compd. with benzene (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 467428-14-4
CMF C86 H28 N2 O6 W
CCI CCS



PAGE 2-A



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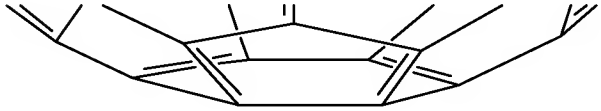


CM 2

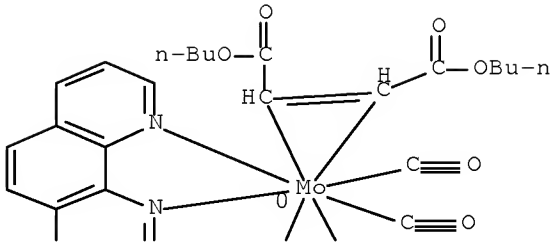
CRN 71-43-2
CMF C6 H6

IT 467428-12-2P 467428-15-5P
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation, mol. structure, EPR, electrochem. redox and optical limiting properties of)

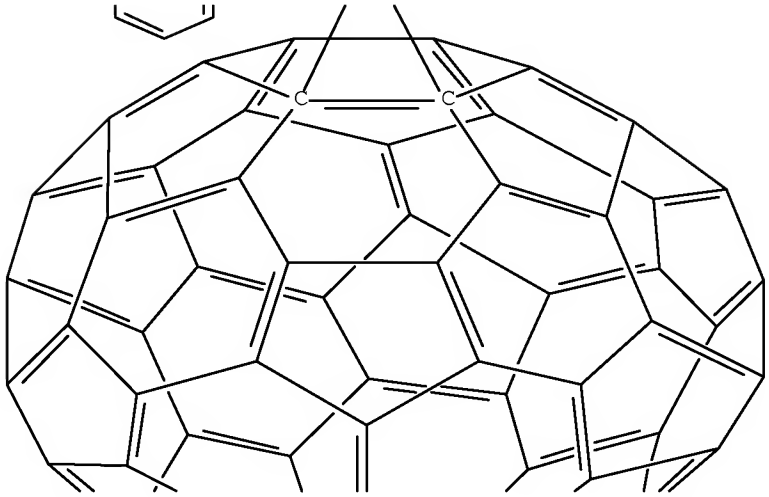
RN 467428-12-2 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



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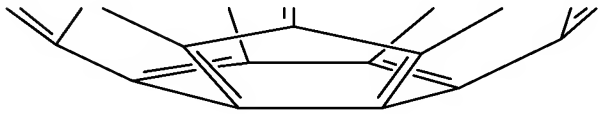


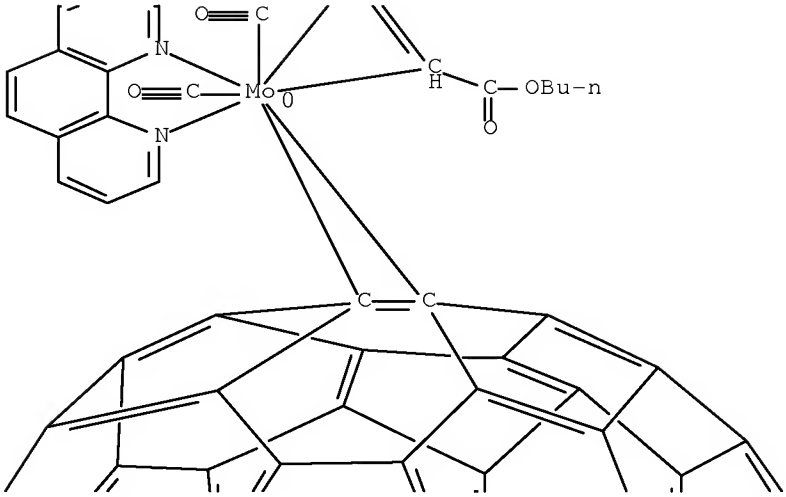
RN 467428-15-5 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][(8,25-η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-

κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A



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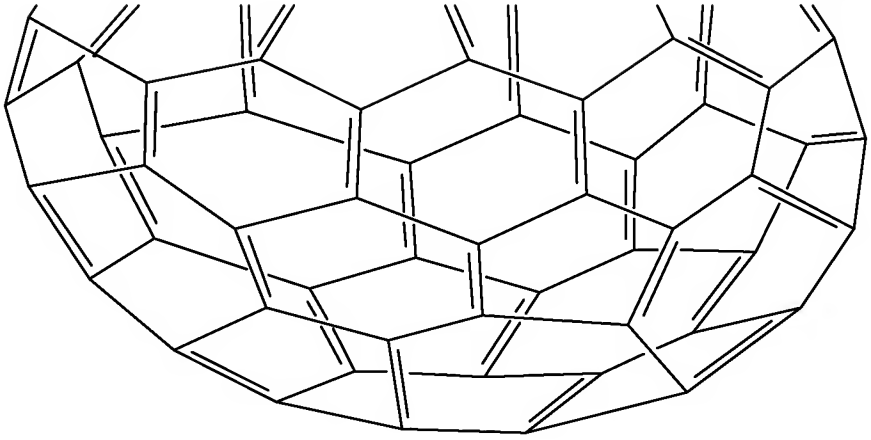
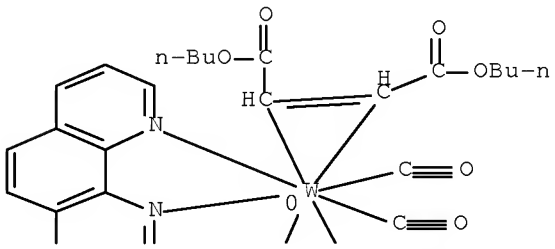


IT 467428-14-4P
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation, mol. structure, EPR, electrochem. redox properties of)
RN 467428-14-4 CAPLUS
CN Tungsten, dicarbonyl[(2,3-η)-dibutyl (2E)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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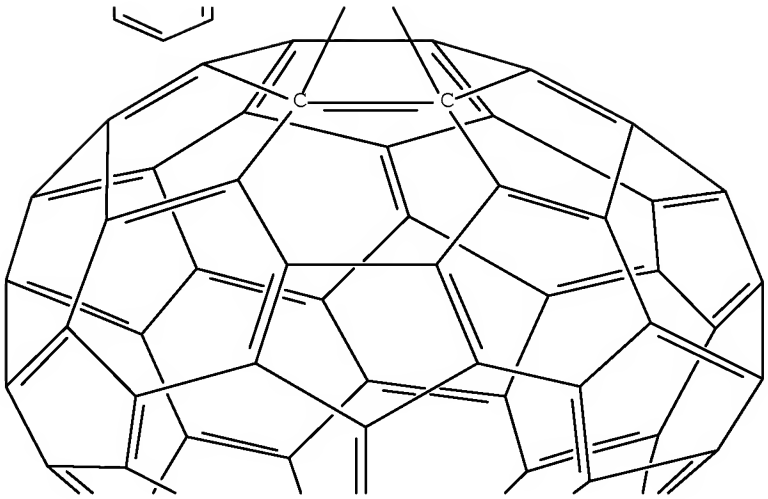

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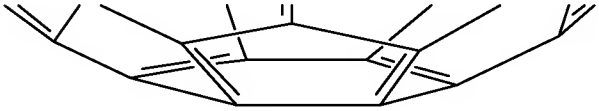


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The optical limiting of nanocomposite based on fullerene was studied using double frequency Nd:YAG pulse laser system with λ = 532 nm, pulse width of 8 ns, and repetition rate of 10 Hz. The novel material has good optical limiting compared with C60. The sample dissolved in different solvents provided different optical limiting.

AN 2002:326 CAPLUS Full-text
DN 136:141732

TI Optical limiting of nanocomposite based on fullerene

AU Zu, Jifeng; Gao, Yachen; Wang, Yuxiao; Qu, Shiliang; Song, Yingling; Fan, Wenqi
CS Department of Physics, Liaoning Normal University, Dalian, 116029, Peop. Rep. China

SO Guangzi Xuebao (2001), 30(9), 1099-1101
CODEN: GUXUED; ISSN: 1004-4213
PB Kexue Chubanshe
DT Journal
LA Chinese

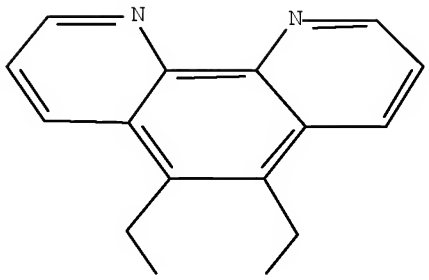
IT 182760-72-1, [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro-
RL: PRP (Properties)
(optical limiting of gold nanocomposite with)

RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline,

5',8'-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A



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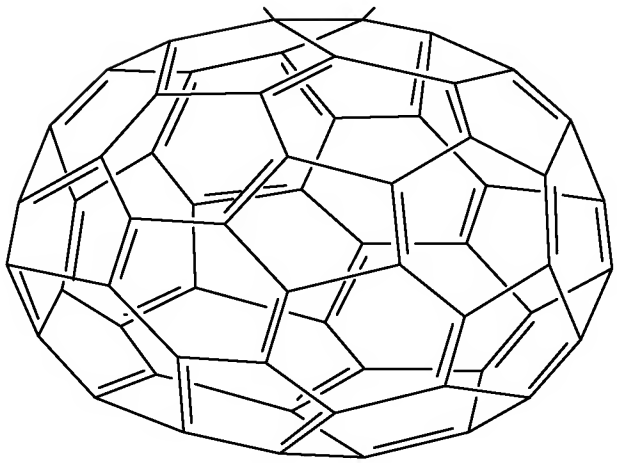


L5 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Two novel nanocomposites based on fullerene C60 structured systems with Au nanoparticles were studied with 532 nm, 8 ns duration laser pulses. The comparison between Z-scan exptl. results and theor. anal. indicates that the nonlinear absorption primarily depends on the ligands, and the nonlinear refraction comes mainly from the contribution of Au nanoparticles in the materials. The comparison of the 2 nanocomposites with the known C60 toluene solution in optical limiting properties was performed. The optical limiting mechanisms were discussed.

AN 2001:766829 CAPLUS Full-text

DN 136:28744

TI Optical nonlinearities in two new nanocomposites based on fullerene C60

structured system with gold nanoparticles

AU Qu, Shi-Liang; Song, Ying-Lin; Du, Chi-Min; Wang, Yu-Xiao; Gao, Ya-Chen; Liu, Shu-Tian; Li, Yu-Liang; Zhu, Dao-Ben

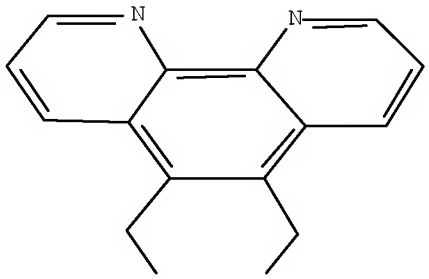
CS Department of Physics, Harbin Institute of Technology, Harbin, 150001, Peop. Rep. China

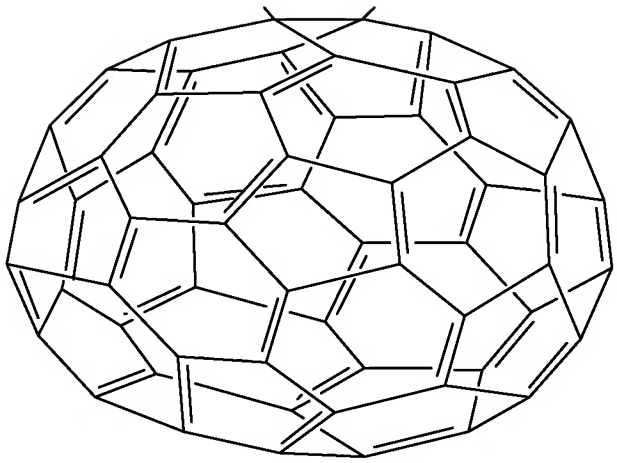
SO Wuli Xuebao (2001), 50(9), 1703-1708
CODEN: WLHPAR; ISSN: 1000-3290
PB Zhongguo Kexueyuan Wuli Yanjiuso
DT Journal
LA Chinese

IT 182760-72-1, [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro-
RL: PRP (Properties)
(optical nonlinearities in two new nanocomposites based on gold nanoparticles with)

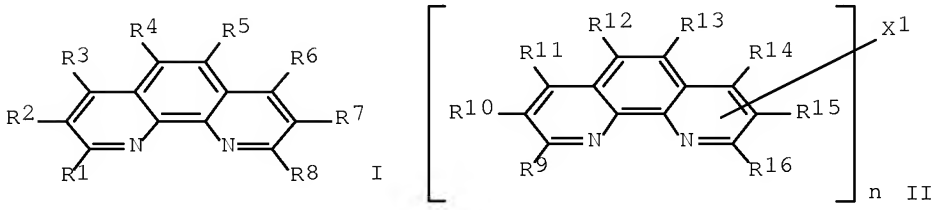
RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)





L5 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB The devices comprise a pair of electrodes interposing a phosphor layer containing a phenanthroline derivs. I and II (R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, OH, SH, alkoxy, alkylthio, arylether, arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, CN, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl; n ≥ 2; and X1 = single bond, bonding between phenanthroline groups).

AN 2001:712868 CAPLUS Full-text
DN 135:280166
TI Organic electroluminescent devices
IN Tominaga, Takeshi; Makiyama, Akira; Kohama, Toru
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

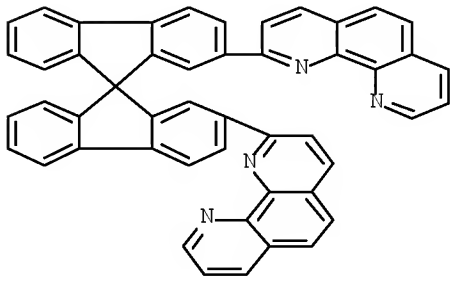
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 2001267080	A	20010928	JP 2000-372543		20001207 <--
				JP 2000-6933	A	20000114

OS MARPAT 135:280166
IT 252078-73-2

RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



L5 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB RuII-coordinated 3,8-dibromo-1,10-phenanthroline ([Ru(Br2phen)(bipy)]2+) undergoes nucleophilic aromatic substitutions with simple nucleophiles (e.g. methylthiolate, N-Boc-L-cysteine) to give the disubstituted products in high yields. When a fluorenyl anion was used, a mono-substituted product is exclusively obtained. The highly acidic nature of this mono-substituted complex results in deprotonation under the reaction conditions and deactivation toward a 2nd substitution reaction. A complex of lower symmetry was obtained that can be further functionalized using other transformations.

AN 2001:693987 CAPLUS Full-text

DN 136:14702

TI Lowering the symmetry of difunctionalized coordination compounds via nucleophilic aromatic substitutions

AU Hurley, D. J.; Tor, Y.

CS Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA, 92093-0358, USA

SO Tetrahedron Letters (2001), 42(41), 7217-7220
CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 136:14702

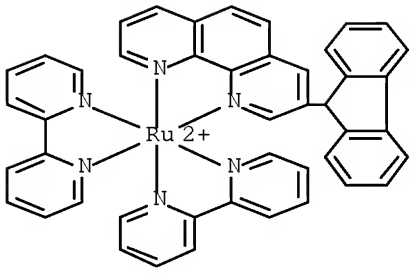
IT 374781-77-8P 374781-79-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation from nucleophilic substitution reaction and deprotonation reaction with base)

RN 374781-77-8 CAPLUS

CN Ruthenium(2+), bis(2,2'-bipyridine-κN1,κN1')[3-(9H-fluoren-9-yl)-1,10-phenanthroline-κN1,κN10]-, (OC-6-31)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

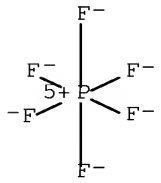
CM 1

CRN 374781-76-7
CMF C45 H32 N6 Ru
CCI CCS



CM 2

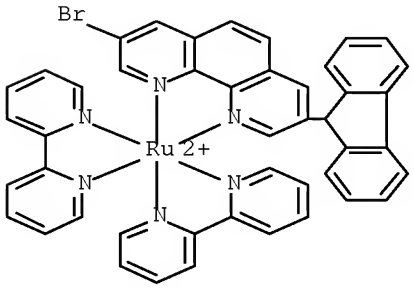
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 374781-79-0 CAPLUS
CN Ruthenium(2+), bis(2,2'-bipyridine-κN1,κN1')[3-bromo-8-(9H-fluoren-9-yl)-1,10-phenanthroline-κN1,κN10]-, (OC-6-31)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

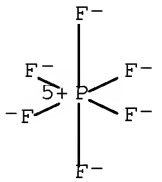
CRN 374781-78-9
CMF C45 H31 Br N6 Ru
CCI CCS



CM 2

CRN 16919-18-9
CMF F6 P

CCI CCS



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The Mo complex of C70, [Mo(η2-C10)2(phen)(dbm)] (1) (phen = 1,10-phenanthroline, dbm = di-Bu maleate) was synthesized in 32% yield by heating a solution of C70 with [Mo(CO)2(phen)(dbm)2] in toluene followed by chromatog. over silica gel and the crystal structure was determined

AN 2001:662457 CAPLUS Full-text
DN 135:371821

TI The crystal structure of the molybdenum complex of [70]fullerene Mo(η2-C70)(CO)2(phen)(dbm)·2C3H8O·2.5H2O (phen = 1,10-phenanthroline, dbm = dibutyl maleate)

AU Cui, Peng; Li, Lei; Tank, Kaluo; Jin, Xianglin
CS Inst. Phys. Chem., Peking Univ., Beijing, 100871, Peop. Rep. China

SO Journal of Chemical Research, Synopses (2001), (6), 240-242
CODEN: JRPSDC; ISSN: 0308-2342
PB Science Reviews Ltd.
DT Journal
LA English
OS CASREACT 135:371821

IT 374725-62-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 374725-62-9 CAPLUS

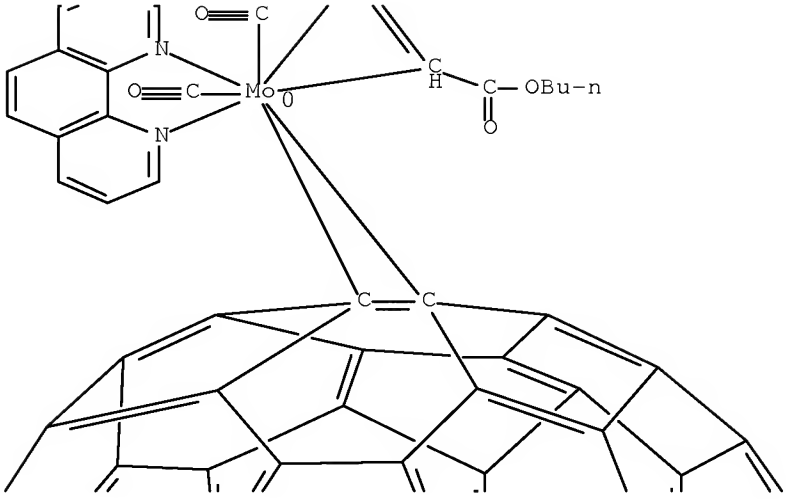
CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(8,25-η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-κN1,κN10)-, stereoisomer, compd. with 2-propanol (2:4), pentahydrate (9CI) (CA INDEX NAME)

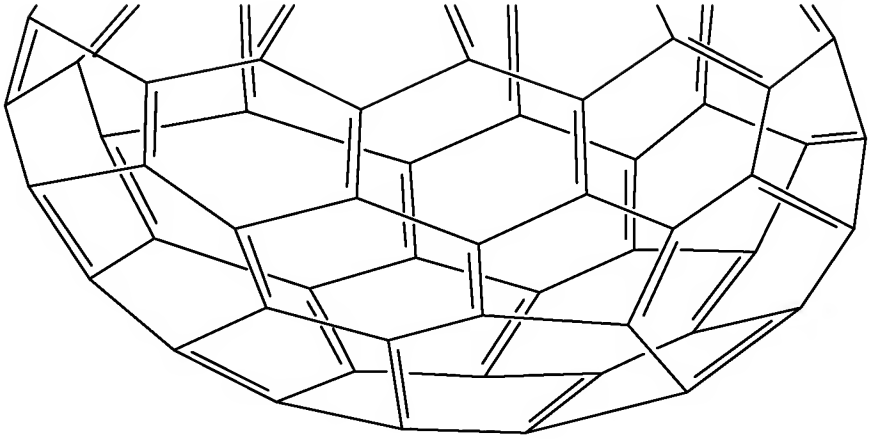
CM 1

CRN 313698-07-6
CMF C96 H28 Mo N2 O6
CCI CCS

PAGE 1-A

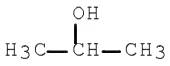
PAGE 2-A





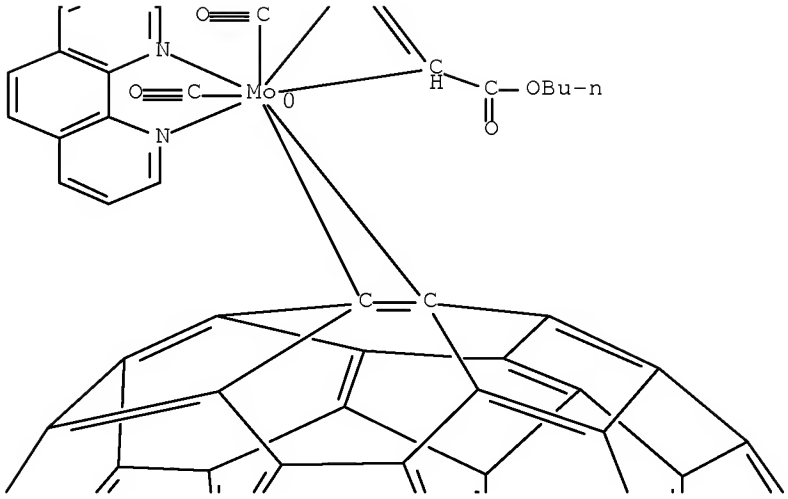
CM 2

CRN 67-63-0
CMF C3 H8 O

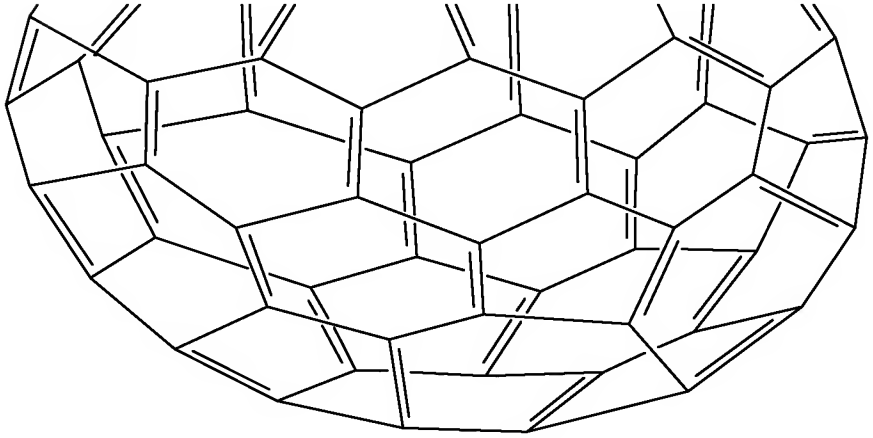


IT 313698-07-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mol. structure of)
RN 313698-07-6 CAPLUS
CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(8,25-η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 2-A



PAGE 3-A



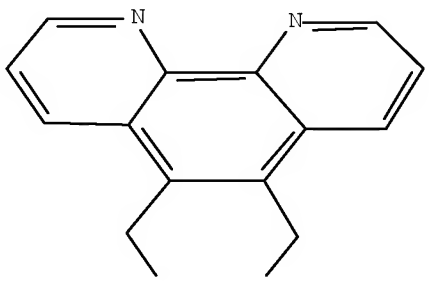
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

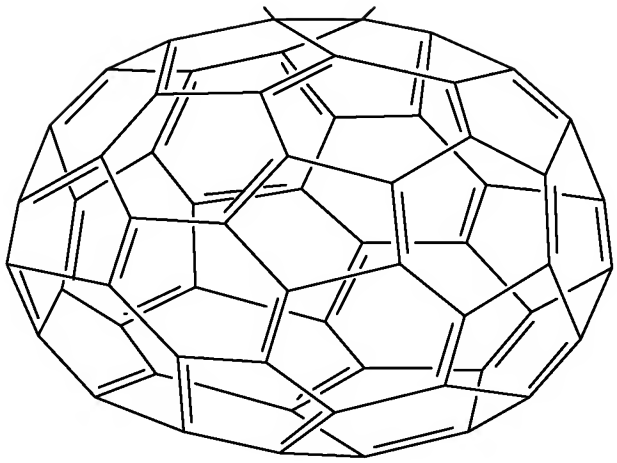
L5 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Nonlinear optical properties of 3 novel nanocomposites with zerovalent noble metal Au nanoparticles were studied by using Z-scan technique. Optical limiting effects was measured with 8 ns pulses at 532 nm. The cross sections of nonlinear absorption were obtained by the simulation with a simplified model in which the effective excited-state absorptions of 3 ligands in nanocomposites were considered. The nonlinear refractive indexes were calculated from the data of Z-scan measurement. The exptl. results are significantly different in these nanocomposites. Optical nonlinearities in

these nanocomposites can be attributed to the strong excited-state absorptions of the ligands and the surface plasmon resonance of Au nanoparticles.

AN 2001:610876 CAPLUS Full-text
DN 135:350051
TI Nonlinear optical properties in three novel nanocomposites with gold nanoparticles
AU Qu, S.; Song, Y.; Du, C.; Wang, Y.; Gao, Y.; Liu, S.; Li, Y.; Zhu, D.
CS Department of Physics, Harbin Institute of Technology, Harbin, 150001, Peop. Rep. China
SO Optics Communications (2001), 196(1-6), 317-323
CODEN: OPCOB8; ISSN: 0030-4018
PB Elsevier Science B.V.
DT Journal
LA English
IT 182760-72-1
RL: PRP (Properties)
(composite with gold nanoparticles; nonlinear optical properties in three novel nanocomposites with gold nanoparticles)
RN 182760-72-1 CAPLUS
CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)





RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Fullerene are structurally defined sym. all C cluster, and have a stable phys. nature. The discovery of good optical limiting properties in fullerene materials represents 1 of the most significant development in study of new optical limiters. The optical limiting capabilities of fullerene are limited by relatively low solubility in common solvents. In order to solve the problem, people have tried synthesizing fullerene derivs. More attention was attracted to the optical limiting of nanocomposites. To improve optical limiting, nanocomposites based on fullerene were synthesized. Nonlinear absorption of nanocomposites based on fullerene were studied. The optical nonlinear absorption of Au nanocomposites based on fullerene were studied by using Z-scan with 532 nm, 8 ns laser pulses. Strong absorption was found, and the results of anal. show the nonlinear absorption arise from different substituent.

AN 2001:583659 CAPLUS Full-text

DN 135:324867

TI Optical nonlinear absorption of gold nanocomposites based on fullerene

AU Zu, Ji-feng; Gao, Ya-chen; Qu, Shi-liang; Wang, Yu-xiao; Song, Ying-lin; Fan, Wen-qi

CS Department of Physics, Liaoning Normal University, Dalian, 116029, Peop. Rep. China

SO Liaoning Shifan Daxue Xuebao, Ziran Kexueban (2001), 24(2), 130-132
CODEN: LSDKEQ; ISSN: 1000-1735

PB Liaoning Shifan Daxue

DT Journal

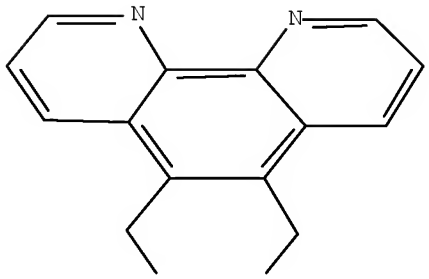
LA Chinese

IT 182760-72-1D, [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro-, gold complexes with
RL: PRP (Properties)
(optical nonlinear absorption of gold nanocomposites with)

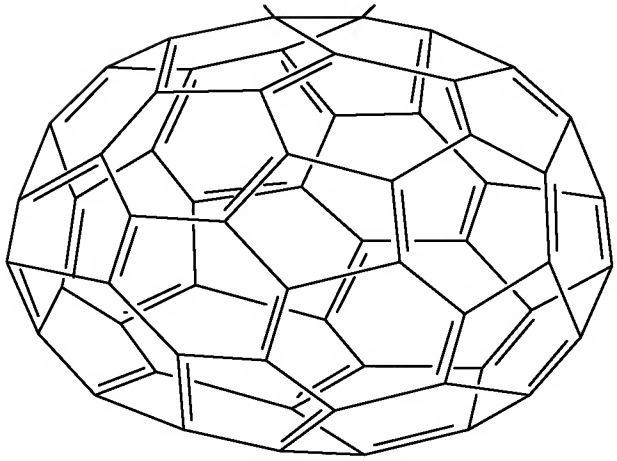
RN 182760-72-1 CAPLUS

CN [5,6]Fullereno-C60-Ih-[1',9':6,7]benzo[f][1,10]phenanthroline, 5',8'-dihydro- (9CI) (CA INDEX NAME)

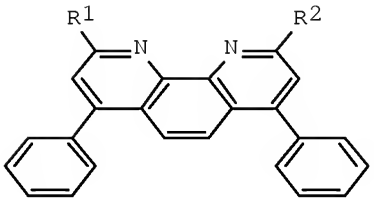
PAGE 1-A



PAGE 2-A



L5 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
GI



I

AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)saturated (un)substituted hydrocarbon groups provided that ≥1 of R1 and R2 has ≥2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for preparing the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compound The compds. may be used as organic layers (e.g., charge transport layers) in electroluminescent devices.

AN 2001:338137 CAPLUS Full-text

DN 134:346297

TI Bathophenanthroline compound and process for preparing same

IN Shibanuma, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro

PA Sony Corporation, Japan

SO Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1097980	A2	20010509	EP 2000-123668	20001030 <--
	EP 1097980	A3	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 1999-312071 A	19991102
	JP 2001131174	A	20010515	JP 1999-312071	19991102 <--
	US 6972334	B1	20051206	US 2000-704968	20001102
				JP 1999-312071 A	19991102
	US 2005073641	A1	20050407	US 2003-656659	20030905
				JP 1999-312071 A	19991102
				US 2000-704968 A1	20001102
	US 2004265626	A1	20041230	US 2004-798820	20040311
	US 7186469	B2	20070306		
				JP 1999-312071 A	19991102
				US 2000-704968 A1	20001102
	US 2005154208	A1	20050714	US 2005-62076	20050221
				JP 1999-312071 A	19991102
				US 2000-704968 A1	20001102
				US 2003-656659 A3	20030905

PATENT FAMILY INFORMATION:

FAN 2001:261095

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1090911	A2	20010411	EP 2000-121754	20001005
	EP 1090911	A3	20010808		
	EP 1090911	B1	20060830		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				JP 1999-285254 A	19991006
	JP 2001106657	A	20010417	JP 1999-285254	19991006
	US 7049470	B1	20060523	US 2000-680371	20001005
				JP 1999-285254 A	19991006
	US 2006178522	A1	20060810	US 2005-153878	20050615
	US 7196225	B2	20070327		
				JP 1999-285254 A	19991006
				US 2000-680371 A1	20001005

FAN 2001:269310

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	JP 2001106658	A	20010417	JP 1999-285255		19991006
	EP 1092704	A2	20010418	EP 2000-121753		20001005
	EP 1092704	A3	20010425			
	EP 1092704	B1	20060308			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
				JP 1999-285255	A	19991006
	US 6492557	B1	20021210	US 2000-680386		20001005
				JP 1999-285254	A	19991006
				JP 1999-285255	A	19991006
	US 2003069448	A1	20030410	US 2002-231355		20020829
	US 6727379	B2	20040427			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
	US 2003073867	A1	20030417	US 2002-231419		20020829
	US 6897341	B2	20050524			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
	US 2003204115	A1	20031030	US 2003-389787		20030317
	US 6790974	B2	20040914			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231419	A3	20020829
	US 2003212289	A1	20031113	US 2003-390381		20030317
	US 6765108	B2	20040720			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231355	A3	20020829
	US 2003220523	A1	20031127	US 2003-392435		20030319
	US 6774257	B2	20040810			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231419	A3	20020829
	US 2005052133	A1	20050310	US 2004-955792		20040930
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2000-704968	A3	20001102
				US 2002-231419	A3	20020829
	US 2005215811	A1	20050929	US 2005-105082		20050413
	US 7087310	B2	20060808			
				JP 1999-285255	A	19991006
				US 2000-680386	A1	20001005
				US 2002-231419	A1	20020829

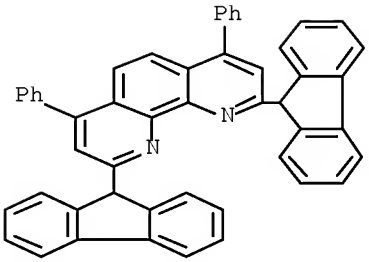
OS MARPAT 134:346297

IT 338734-80-8P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bathophenanthroline derivs. and their preparation and use in electroluminescent devices)

RN 338734-80-8 CAPLUS

CN 1,10-Phenanthroline, 2,9-di-9H-fluoren-9-yl-4,7-diphenyl- (CA INDEX NAME)



L5 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Many isomers of azafullerenes are predicted to be kinetically stable with pos. or small neg. bond resonance energies (BREs). However, none of them have been isolated in macroscopic amts. This fact is presumably associated with the tendency for nascent azafullerenes to eliminate nitrogen atoms as N2 or CN. Thus, azafullerenes are among the rare examples whose kinetic instability cannot be predicted by the BRE method. However, if someone succeeds in isolating azafullerenes as solids, he or she may possibly notice that some of the isomers with a min BRE > -0.100β are fairly inert.

AN 2000:833915 CAPLUS Full-text
DN 134:106125

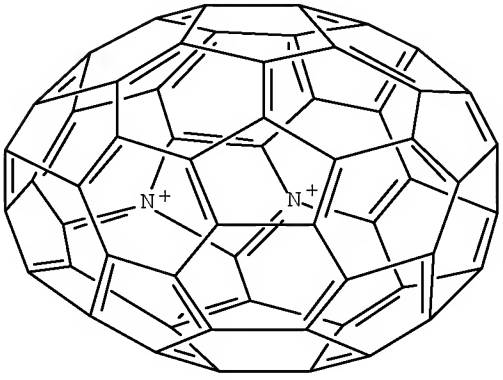
TI Kinetic instability of azafullerenes

AU Aihara, J.
CS Department of Chemistry, Faculty of Science, Shizuoka University, Oya Shizuoka, 422-8529, Japan

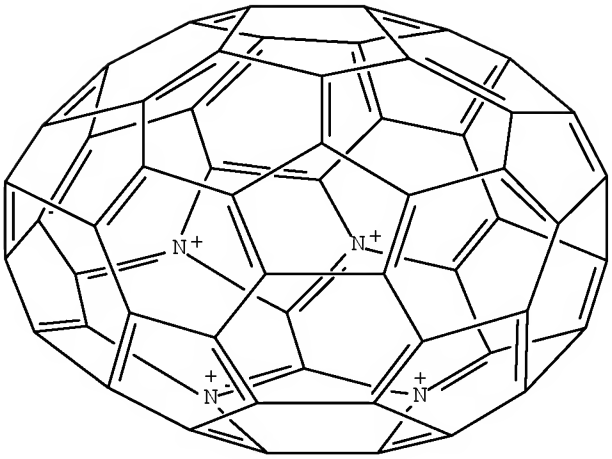
SO THEOCHEM (2000), 532, 95-102
CODEN: THEODJ; ISSN: 0166-1280
PB Elsevier Science B.V.
DT Journal
LA English

IT 320375-80-2, 1,3-Diazonia[5,6]fullerene-C60-Ih 320376-26-9
RL: PRP (Properties)
(kinetic instability of azafullerenes studied theor.)

RN 320375-80-2 CAPLUS
CN 1,3-Diazonia[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)



RN 320376-26-9 CAPLUS
CN 1,3,11,13-Tetraazonia[5,6]fullerene-C60-Ih (9CI) (CA INDEX NAME)



RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Optical limiting property of a novel Mo complex of fullerene C70, (η2-C70)Mo(CO)2(o-phen)(DBM), was studied under irradiation of 10-ns laser pulse at 532 nm. The exptl. results demonstrated that the derivative performed with better optical limiting behavior than the parent C70. An explanation based on the enhanced triplet-triplet absorption dominated by the intramol. charge transfer was given.

AN 2000:719154 CAPLUS Full-text

DN 134:63489

TI Optical limiting property of molybdenum complex of fullerene C70

AU Liu, C.; Zhao, G.; Gong, Q.; Tang, K.; Jin, X.; Cui, P.; Li, L.

CS Department of Physics, National Laboratory for Mesoscopic Physics, Peking University, Beijing, 100871, Peop. Rep. China

SO Optics Communications (2000), 184(1-4), 309-313
CODEN: OPCOB8; ISSN: 0030-4018

PB Elsevier Science B.V.

DT Journal

LA English

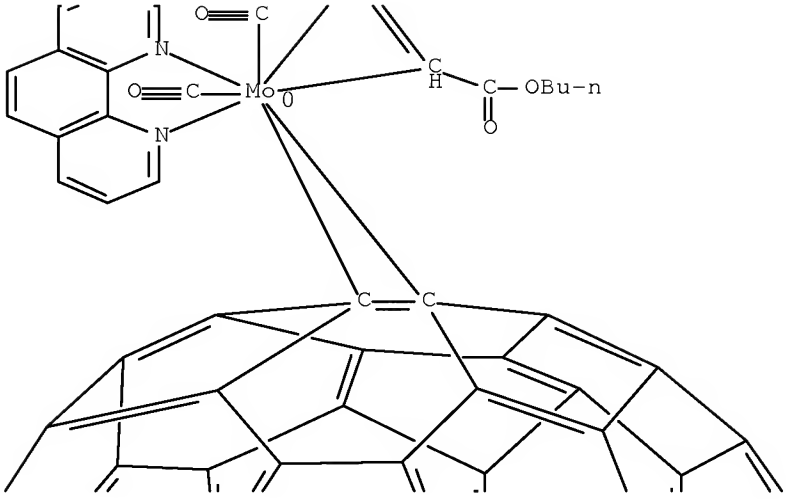
IT 313698-07-6P
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(optical limiting property of molybdenum complex of fullerene C70)

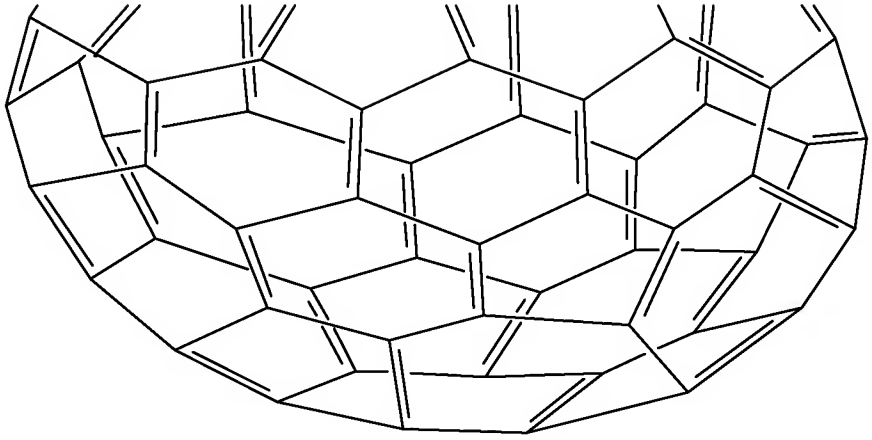
RN 313698-07-6 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(8,25-η)-[5,6]fullerene-C70-D5h(6)](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A





RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Tris[1(N- ethylcarbazolyl)(3',5'-hexyloxybenzoyl)methane](phenanthroline)europium 1 incorporates a phenanthroline ligand for electron transport and a carbazole fragment in the diketonate ligand for hole transport. Also, the six hexyloxy groups prevent crystallization and allow for the formation of transparent clear films directly from solution The photoluminescence from films of 1 is nearly monochromatic, characteristic of the Eu ion and proceeds with an efficiency of 50(3)%. Light emitting diodes (LEDs) were fabricated using the simplest possible device architecture comprising an anode (ITO), a layer of 1 and a cathode (Ca); a 2nd LED configuration with a PVK layer on top of the ITO was also studied. The performance of the two types of devices is discussed.

AN 2000:585155 CAPLUS Full-text

DN 133:328786

TI Synthesis, morphology and optoelectronic properties of tris[(N-ethylcarbazolyl)(3',5'-hexyloxybenzoyl)methane](phenanthroline)europium

AU Robinson, Matthew R.; Bazan, Guillermo C.; O'Regan, Marie B.

CS Dep. Mater. Eng., University of California, Santa Barbara, CA, 93106, USA

SO Chemical Communications (Cambridge) (2000), (17), 1645-1646
CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

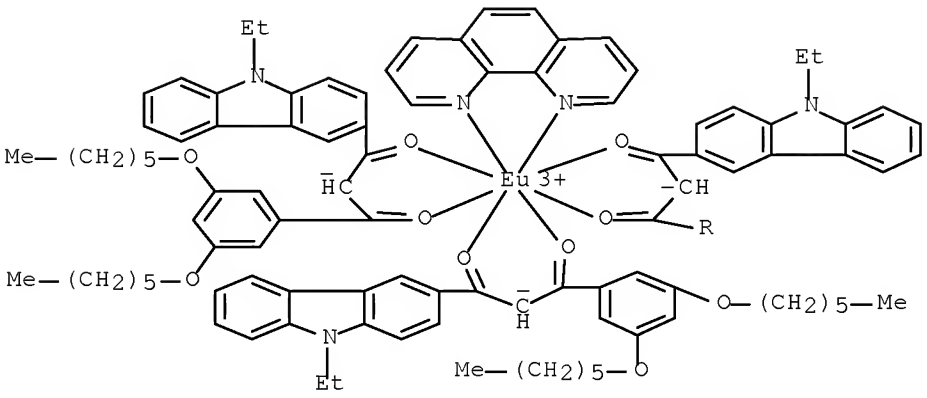
LA English

IT 303090-36-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(preparation and luminescence and use in electroluminescent devices)

RN 303090-36-0 CAPLUS

CN Europium, tris[1-[3,5-bis(hexyloxy)phenyl]-3-(9-ethyl-9H-carbazol-3-yl)-1,3-propanedionato-κO,κO']](1,10-phenanthroline-κN1,κN10)- (9CI) (CA INDEX NAME)

PAGE 1-A



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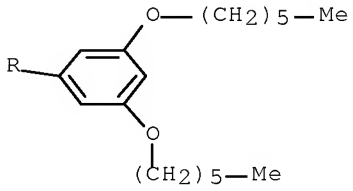


RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB Two new dyads were synthesized in which terminal Ru(II) and Os(II) polypyridine complexes are separated by sterically constrained spiro bridges. The photophys. properties of the corresponding mononuclear complexes indicate the importance of the decay of the lowest-energy triplet states localized on the metallo fragments through the higher-energy metal-centered excited states. This effect is minimized at 77 K, where triplet lifetimes are relatively long, and for the Os(II)-based systems relative to their Ru(II)-based counterparts. Intramol. triplet energy transfer takes place from the Ru(II)-based fragment to the appended Os(II)-based unit, the rate constant being dependent on the mol. structure and on temperature In all cases, the exptl. rate constant matches surprisingly well with the rate constant calculated for Forster-type dipole-dipole energy transfer. As such, the disparate rates shown by the two compds. can be attributed to stereochem. factors. Further the spiro bridging unit does not favor through-bond electron exchange interactions, a situation confirmed by cyclic voltammetry.

AN 2000:463590 CAPLUS Full-text

DN 133:216829

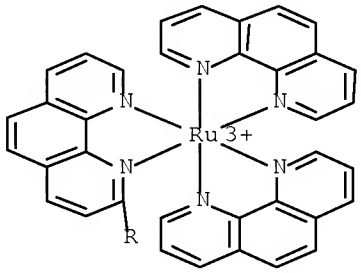
TI Mono- and Dinuclear Ruthenium(II) and Osmium(II) Polypyridine Complexes Built around Spiro-Bridged Bis(phenanthroline) Ligands: Synthesis, Electrochemistry, and Photophysics

AU Juris, Alberto; Prodi, Luca; Harriman, Anthony; Ziessel, Raymond; Hissler, Muriel; El-ghayoury, Abdelkrim; Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.

CS Dipartimento di Chimica G. Ciamician, Universita di Bologna, Bologna, 40126, Italy

SO Inorganic Chemistry (2000), 39(16), 3590-3598
CODEN: INOCAJ; ISSN: 0020-1669
PB American Chemical Society
DT Journal
LA English
IT 289912-28-3 289912-29-4 289912-31-8
289912-32-9 289912-34-1 289912-43-2
289912-45-4 289912-47-6 289912-49-8
289912-51-2 289912-53-4 289912-55-6
289912-57-8
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(elec. potential of couple containing)
RN 289912-28-3 CAPLUS
CN Ruthenium(3+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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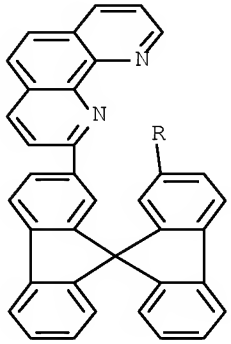
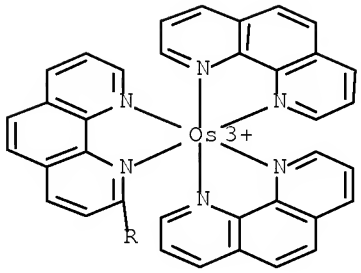


RN 289912-29-4 CAPLUS
CN Osmium(3+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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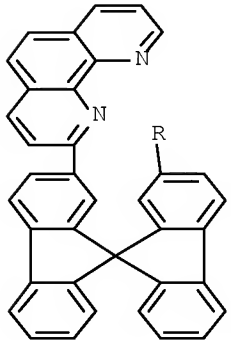
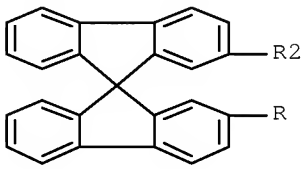


RN 289912-31-8 CAPLUS

CN Ruthenium(6+), tetrakis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)

PAGE 1-A



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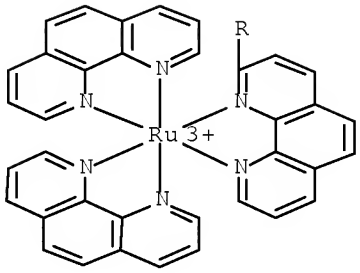

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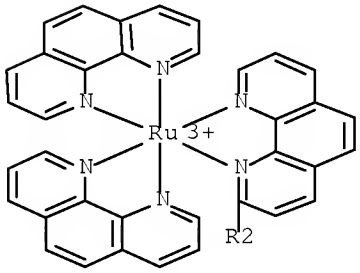
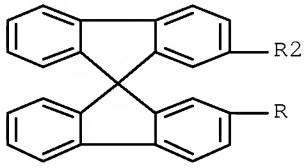


RN 289912-32-9 CAPLUS

CN Osmium(5+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI) (CA INDEX NAME)

PAGE 1-A



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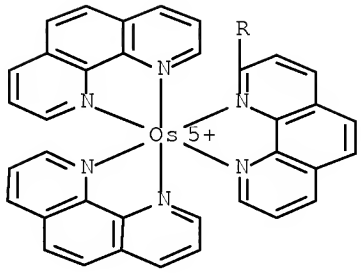
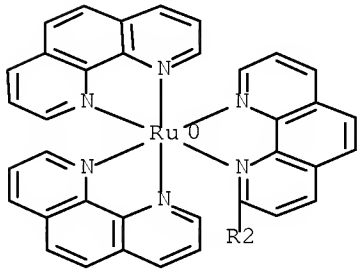


PAGE 3-A



RN 289912-34-1 CAPLUS

CN Osmium(6+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI) (CA INDEX NAME)

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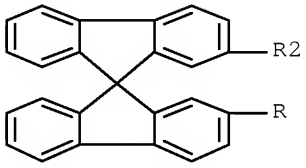

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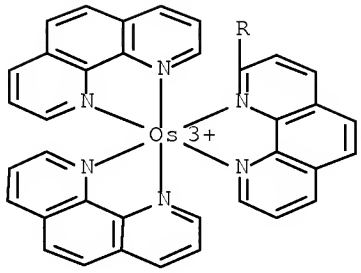
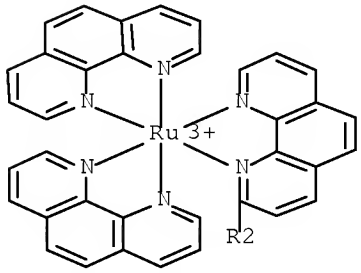


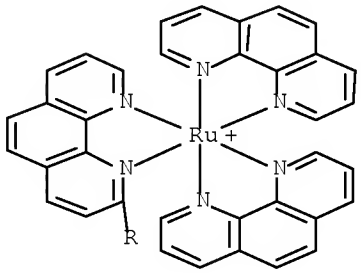
PAGE 3-A



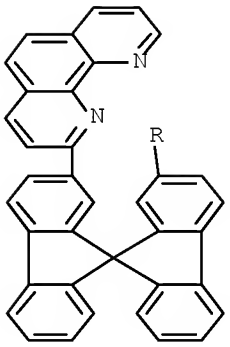
RN 289912-43-2 CAPLUS

CN Ruthenium(1+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RN 289912-45-4 CAPLUS

CN Ruthenium, bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

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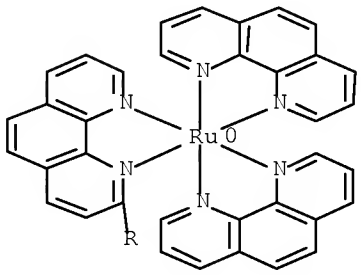

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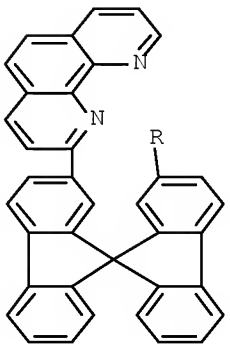

RN 289912-47-6 CAPLUS

CN Osmium(1+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-

κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

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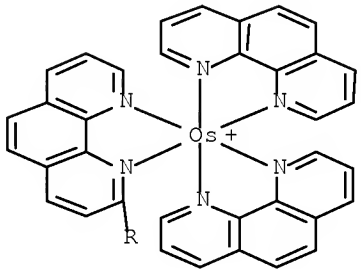

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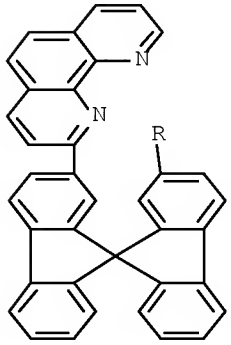
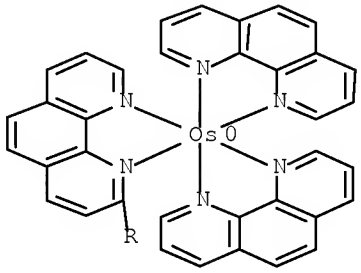


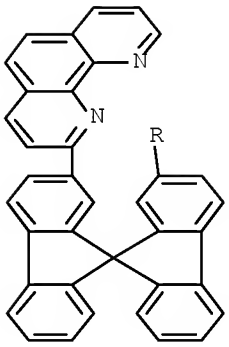
RN 289912-49-8 CAPLUS

CN Osmium, bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RN 289912-51-2 CAPLUS

CN Ruthenium(2+), tetrakis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)

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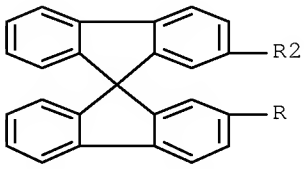

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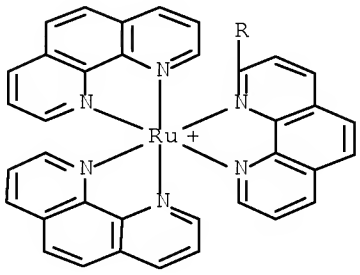

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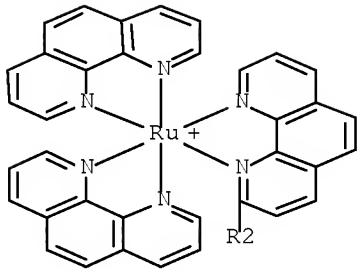
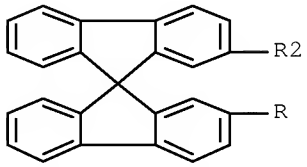


RN 289912-53-4 CAPLUS

CN Ruthenium, tetrakis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di- (9CI) (CA INDEX NAME)

PAGE 1-A



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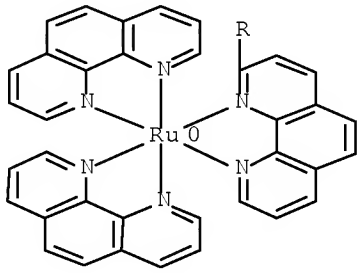

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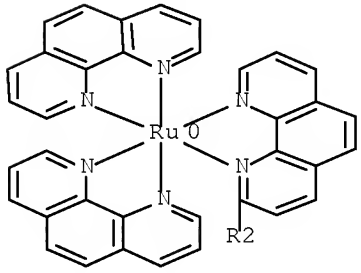
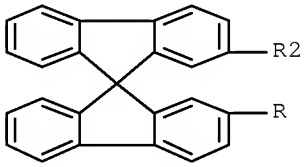


RN 289912-55-6 CAPLUS

CN Osmium(2+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI) (CA INDEX NAME)

PAGE 1-A



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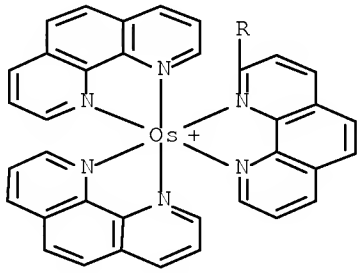
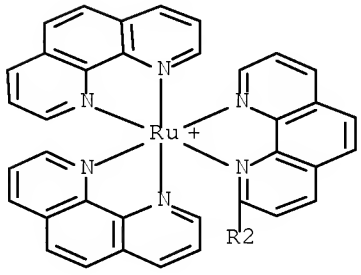


PAGE 3-A



RN 289912-57-8 CAPLUS

CN Osmium, [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]- (9CI) (CA INDEX NAME)

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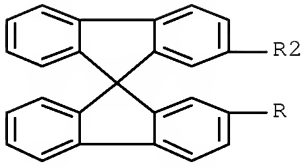

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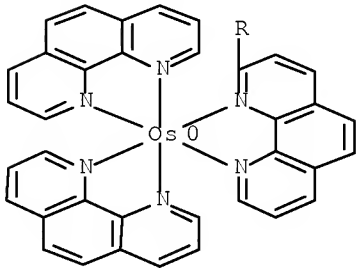

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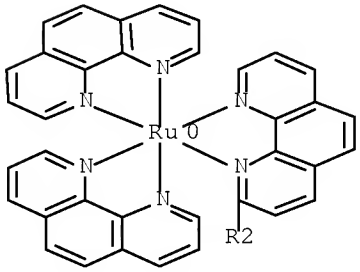


IT 253141-13-8P 289912-14-7P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, electrochem. redox and photophysics)

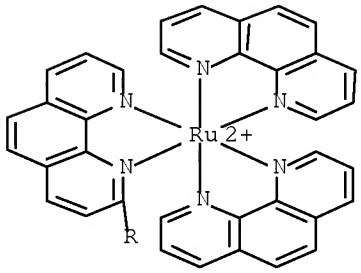
RN 253141-13-8 CAPLUS

CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 253141-12-7
CMF C73 H44 N8 Ru
CCI CCS

PAGE 1-A



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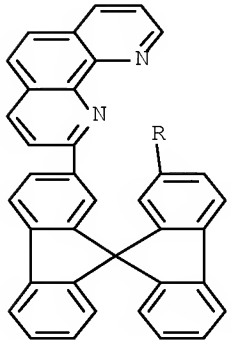
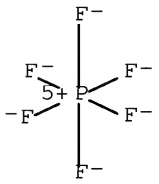


CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



RN 289912-14-7 CAPLUS
CN Ruthenium(4+), tetrakis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]di-, tetrakis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 289912-13-6

CMF C97 H60 N12 Ru2
CCI CCS

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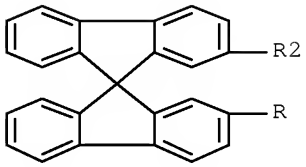

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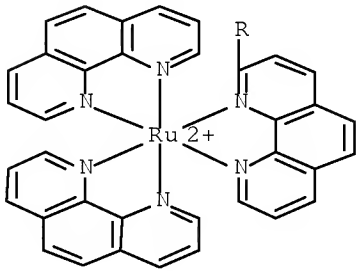

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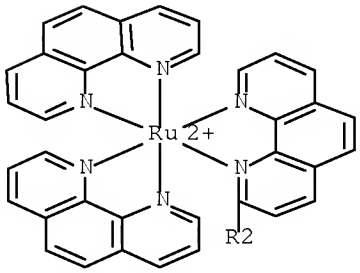
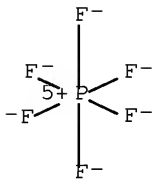


CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS

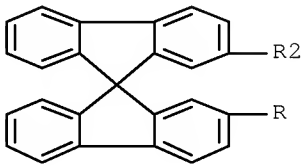


IT 289912-22-7P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, electrochem. redox, photophysics and energy transfer kinetics)
RN 289912-22-7 CAPLUS
CN Osmium(4+), [bis(1,10-phenanthroline-κN1,κN10)ruthenium]bis(1,10-phenanthroline-κN1,κN10)[μ-[2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis[1,10-phenanthroline-κN1,κN10]]]-, tetrakis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 289912-21-6
CMF C97 H60 N12 Os Ru
CCI CCS

PAGE 1-A



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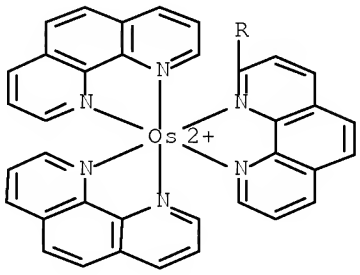
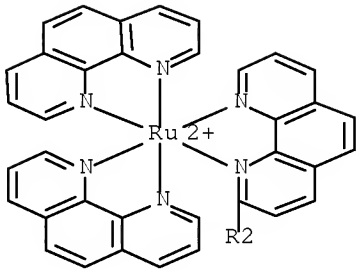
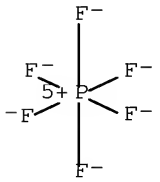




CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



IT 289912-18-1P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, electrochem. redox, photophysics and reaction to give heterodinuclear ruthenium(II)-osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

RN 289912-18-1 CAPLUS

CN Osmium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 289912-17-0
CMF C73 H44 N8 Os
CCI CCS

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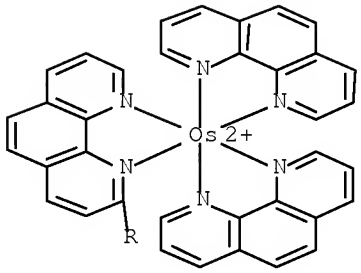

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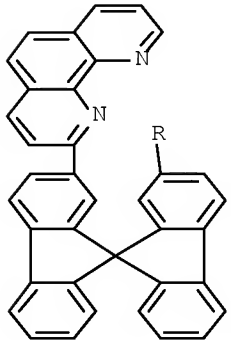

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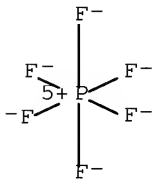
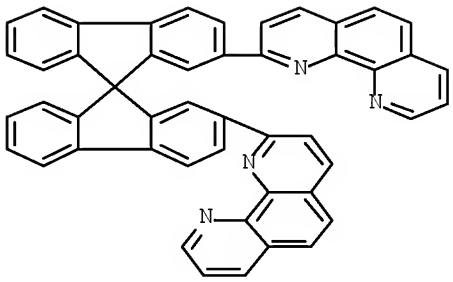
CRN 16919-18-9
CMF F6 P
CCI CCS



IT 252878-73-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of mono- and dinuclear ruthenium(II) and osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN

AB The electrochem. behavior of the series (C60)[Mo(CO)2(phen)(dbm)]n (n = 1-3) was studied in dichloromethane solution Each member of the family displays three reversible, fullerene-centered, 1-electron redns. at potential values which linearly shift towards more neg. potential values by 0.15 V for each appended molybdenum fragment. Such reduction processes are in turn followed by a metal-centered reduction, which causes decomplexation of the C60 ligand. EPR spectra recorded on the electrogenerated monoanions [(C60){Mo(CO)2(phen)(dbm)}n]- (n = 1,2) exhibit features indicative of some interaction between the electron entering the fullerene ligand and the metallic center(s). Comparison with the redox behavior of the C70-analog (C70)[Mo(CO)2(phen)(dbm)] reveals significant differences, that the C70-analog exhibits two reversible 1-electron redns. followed by a single two-electron reduction, all of these redns. being centered on the fullerene ligand. A further cathodic step centered on the metallic fragment is present, which, also in this case, causes framework destruction releasing the C70 ligand.

AN 2000:379450 CAPLUS Full-text
DN 133:95935

TI The redox behavior of the family (C60)[Mo(CO)2(phen)(dbm)]n (n = 1-3) - a comparison with the analog (η2-C70)[Mo(CO)2(phen)(dbm)] (phen = 1,10-phenanthroline; dbm = dibutyl maleate)

AU Zanello, Piero; Laschi, Franco; Cinquantini, Arnaldo; Fontani, Marco; Tang, Kaluo; Jin, Xianglin; Li, Lei
CS Dipartimento di Chimica dell'Universita di Siena, Siena, 53100, Italy

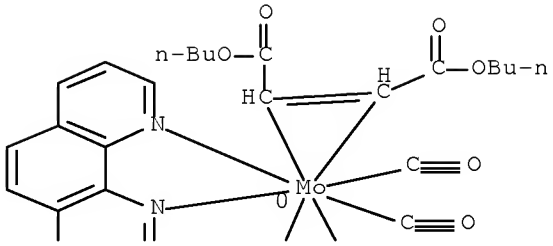
SO European Journal of Inorganic Chemistry (2000), (6), 1345-1350
CODEN: EJICFO; ISSN: 1434-1948
PB Wiley-VCH Verlag GmbH
DT Journal
LA English

IT 198712-81-1
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(electrochem. reduction on platinum and formal potentials in dichloromethane)

RN 198712-81-1 CAPLUS

CN Molybdenum, dicarbonyl[(2,3-η)-dibutyl 2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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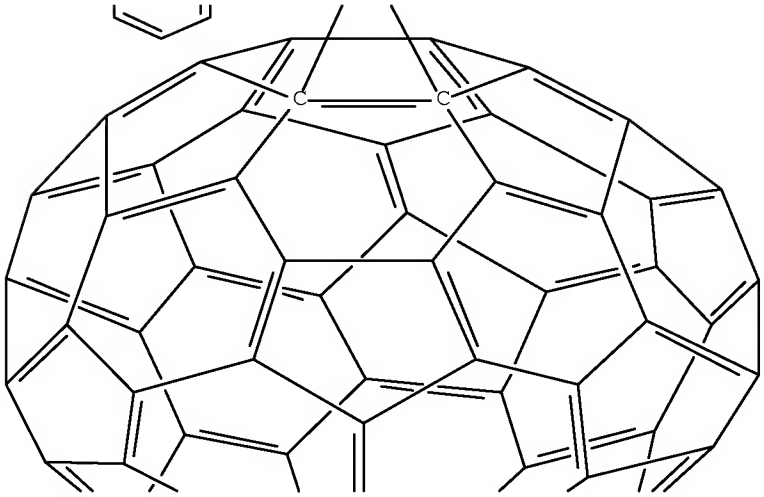

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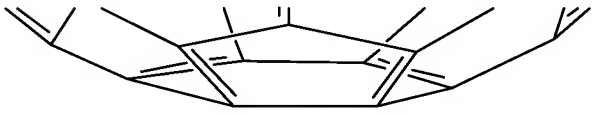


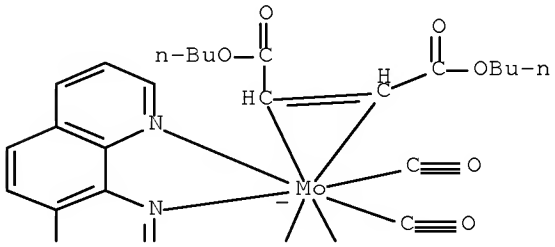
IT 225373-73-9
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation,

nonpreparative); PROC (Process); RACT (Reactant or reagent)
(electrochem. reductive formation and EPR and electrochem. reduction of)

RN 225373-73-9 CAPLUS

CN Molybdate(1-), dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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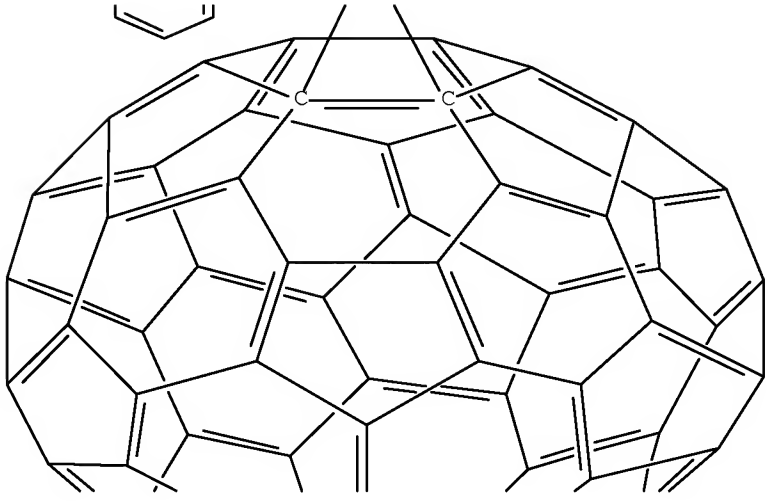

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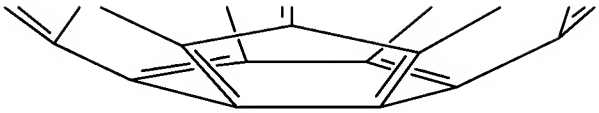
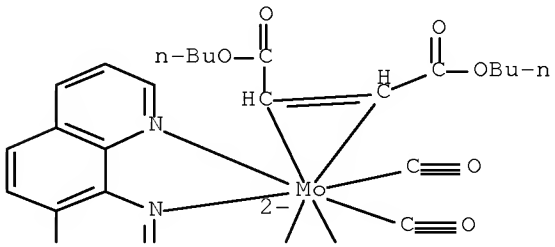


IT 280742-12-3
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)
(electrochem. reductive formation and reduction in dichloromethane)

RN 280742-12-3 CAPLUS

CN Molybdate(2-), dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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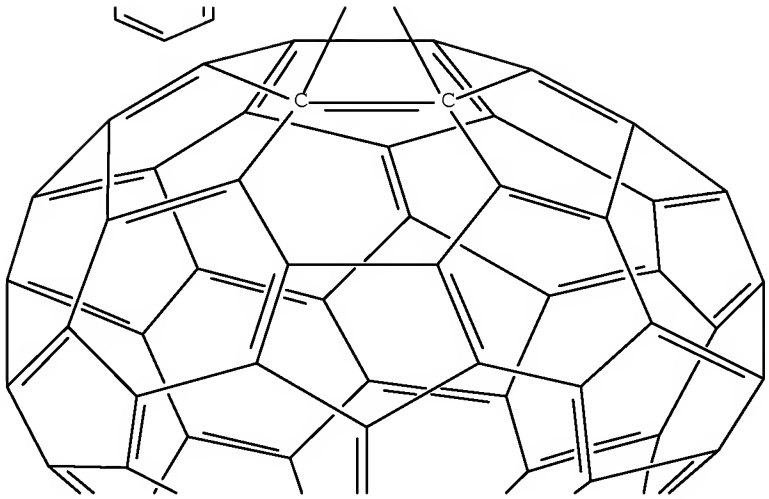

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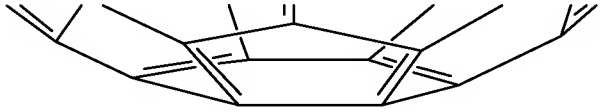
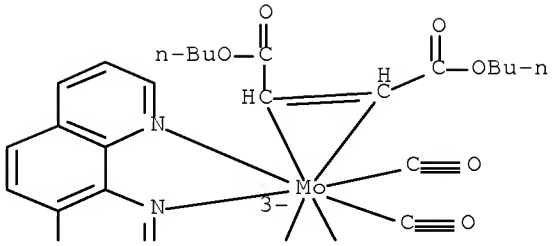


IT 280742-13-4
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)
(electrochem. reductive formation in dichloromethane)

RN 280742-13-4 CAPLUS

CN Molybdate(3-), dicarbonyl[(2,3-η)-dibutyl (2Z)-2-butenedioate][(1,9-η)-[5,6]fullerene-C60-Ih](1,10-phenanthroline-κN1,κN10)-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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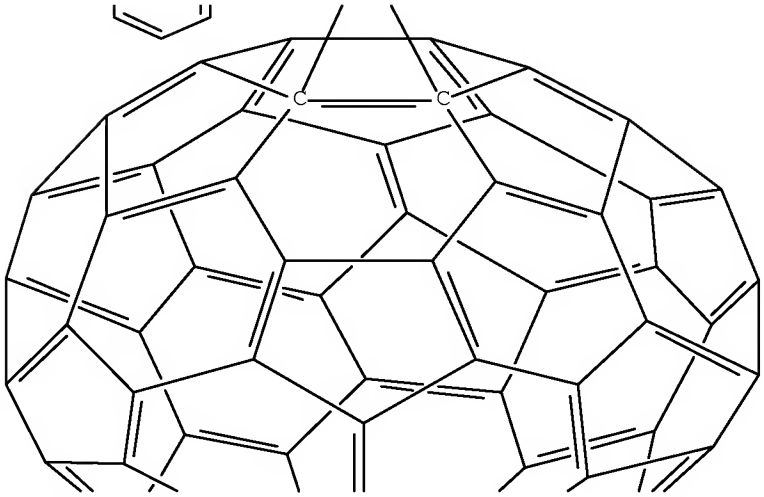

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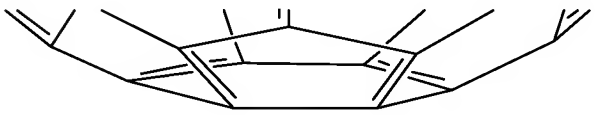

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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                  MEDLINE segment
 NEWS 13  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
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 NEWS 14  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 15  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
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                  custom IPC display formats
 NEWS 19  JAN 28  MARPAT searching enhanced
 NEWS 20  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS 21  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 22  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
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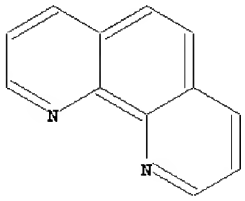

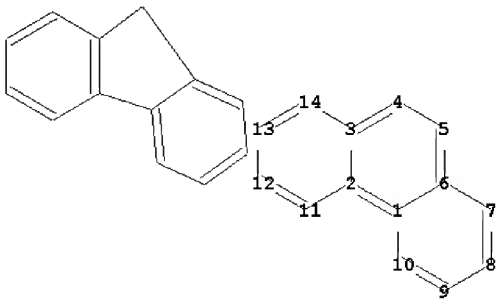

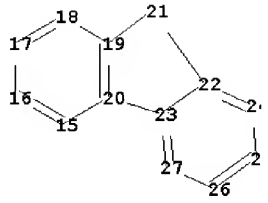

ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ring bonds :
1-2 1-6 1-10 2-3 2-11 3-4 3-14 4-5 5-6 6-7 7-8 8-9 9-10 11-12 12-13 13-14 15-16 15-20 16-17 17-18 18-19 19-20 19-21 20-23 21-22 22-23 22-24 23-27 24-25 25-26 26-27
exact/norm bonds :
19-21 20-23 21-22
normalized bonds :
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isolated ring systems :
containing 1 :

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS

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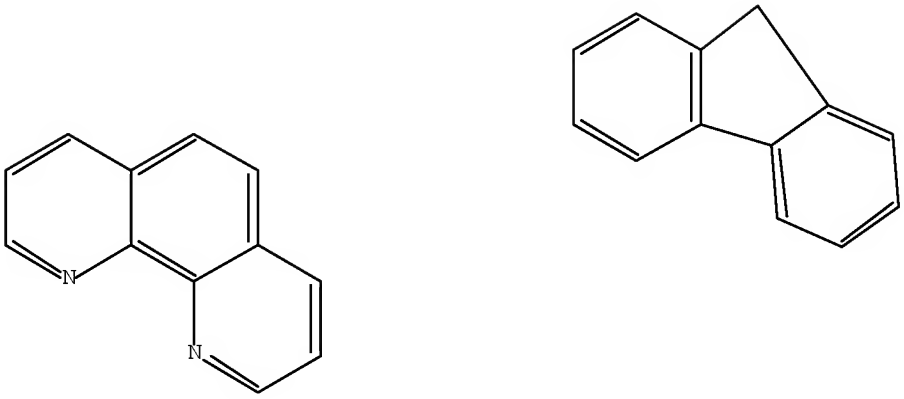

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BATCH **COMPLETE**
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PROJECTED ANSWERS: 6 TO 266

L2 6 SEA SSS SAM L1

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FULL SCREEN SEARCH COMPLETED - 16153 TO ITERATE

100.0% PROCESSED 16153 ITERATIONS 51 ANSWERS
SEARCH TIME: 00.00.01

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FILE LAST UPDATED: 26 Feb 2008 (20080226/ED)

=> s l3
L4 44 L3

=> d abs fbib hitstr 30-44

L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The following polymers were prepd. by Suzuki coupling of 3,8-dibromo-1,10-phenanthroline and appropriate sym. substituted aromatic boron derivs.: poly[3,8-(1,10-phenanthroline)(2,5-didodecyloxy)-1,4- phenylene] and poly[3,8-(1,10-phenanthroline)(9,9-dioctyl)-2,7-fluorene]. 2,5-Didodecyloxy-1,4-bis(5,5-dimethyl-1,3,2-dioxaborinan-2-yl)benzene was also coupled with a number of 2,5-disubstituted 1,4-bis(5-bromopyridin-2- yl)benzenes (2,5-substitution patterns: H/H, OMe/OC12H25, OH/OC12H25, and OMe/OMe). All resulting polymers were characterized by spectroscopic means as well as their electrochem. and optical data. The metal complexation and photoluminescence behavior (Zn, Eu, and Ir complexes) of poly(phenanthroline phenylene/fluorene) was also studied.

AN 2004:234250 CAPLUS Full-text
DN 141:24021

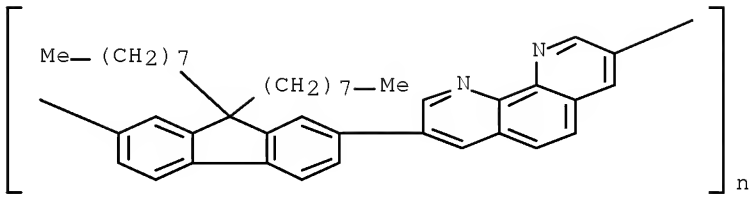
TI New luminescent 1,10-phenanthroline- and pyridine-containing π-conjugated polymers: synthesis and optical response to protic acid and metal ions

AU Yasuda, Takuma; Yamamoto, Takakazu
CS Chemical Resources Laboratory, Tokyo Institute of Technology, Yokohama, 226-8503, Japan

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2004), 45(1), 250-251
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English

IT 620970-81-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of luminescent phenanthroline- and pyridine-containing conjugated polymers and optical response to protic acid and metal ions)

RN 620970-81-2 CAPLUS
CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB New π-conjugated polymers comprised of alternating 1,10- phenanthroline/1,4-didodecyloxybenzene, 1,10-phenanthroline/9,9- dioctylfluorene, or pyridine/1,4-dialkoxybenzene units were prepared by palladium(0)-catalyzed coupling reaction in 84-98% yields. The derived polymers gave Mn of 5400-8800 in GPC anal., and they possessed good solubility in organic solvents and high thermal stability. Electrochem. reduction (or n-doping) of the polymers proceeded with peaks in the range -2.3 to -2.6 V vs Ag+/Ag. The polymers were highly photoluminescent, and strong blue emission with the peak in the range 412-434 nm was observed in solns. The emission peak as well as the UV-vis absorption peak of the polymer was influenced by the solvent polarity, protonation, and formation of metal complexes. When the polymers were protonated with trifluoroacetic acid, a large red-shift (ca. 40-60 nm) of the absorption peak was observed The photoluminescent properties of the polymers were tuned by coordination of the polymer with metal ions. Polymers with long side chains formed an ordered structure in the solid state as judged from their XRD patterns.

AN 2003:726775 CAPLUS Full-text
DN 139:365332

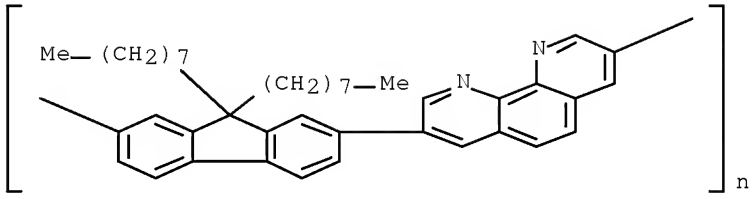
TI Synthesis and Characterization of New Luminescent 1,10-Phenanthroline- and Pyridine-Containing π-Conjugated Polymers. Their Optical Response to Protic Acid, Mn+, and Solvents

AU Yasuda, Takuma; Yamamoto, Takakazu
CS Chemical Resources Laboratory, Tokyo Institute of Technology, Midori-ku Yokohama, 226-8503, Japan

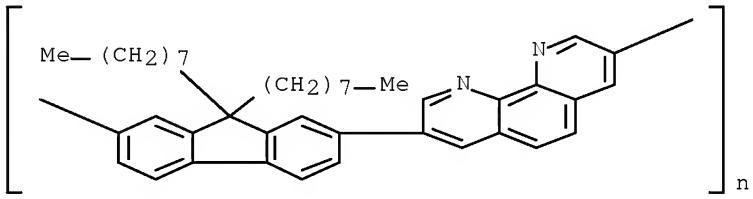
SO Macromolecules (2003), 36(20), 7513-7519
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English

IT 620970-81-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and characterization of luminescent phenanthroline- and pyridine-containing conjugated polymers and their optical response to protic acid and metal ions and solvents)

RN 620970-81-2 CAPLUS
CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



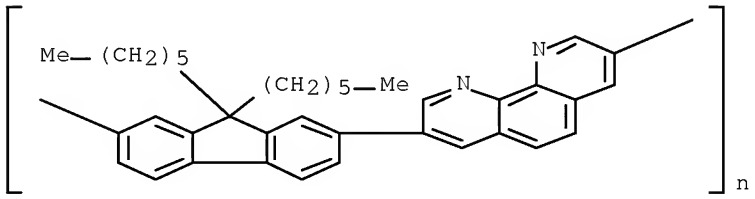
IT 620970-81-2DP, metal complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of luminescent phenanthroline- and pyridine-containing conjugated polymers and their optical response to protic acid and metal ions and solvents)
RN 620970-81-2 CAPLUS
CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dioctyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

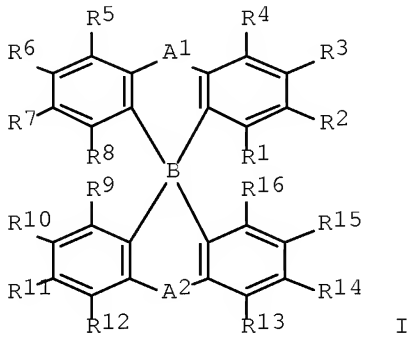
L4 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB The effects of the rigidity of mol. recognition sites in fluorene-based conjugated polymers P1 and P2 on metal ion sensing were studied. The structures of polymers P1 and P2 have twisted 2,2'-bipyridine and planar 1,10-phenanthroline units, resp., which alternate with one fluorene monomer unit. The absorption and emission bands of 1,10-phenanthroline- based polymer P2 exposed to metal ions can be red shifted up to 30 nm, and emission intensity can be quenched up to 100%, depending on metal ions present, which is very similar to that of the 2,2'-bipyridine-based analog P1. However, polymer P2 shows much higher sensitivity to metal ions than P1. The origins of ionochromic effects of the 2,2'-bipyridine-based conjugated polymer due to the metal ion chelation were attributed to both conformational changes and electron d. variations on the polymer chains caused by introducing pos. charged metal ions (Chen et al. J. Phys. Chemical, B 2000, 104, 1950-1960). From the comparison of P2 with P1, conformational changes are not required in the ion responsive process of the phen ion-recognition unit. The electron d. variations play more important roles in metal ion-induced red shifts in absorption and fluorescence quenching in photoluminescence.
AN 2003:444246 CAPLUS Full-text
DN 139:172725
TI Metal Ionochromic Effects of Conjugated Polymers: Effects of the Rigidity of Molecular Recognition Sites on Metal Ion Sensing
AU Zhang, Ming; Lu, Ping; Ma, Yuguang; Shen, Jiacong
CS Key Laboratory for Supramolecular Structure and Materials of Ministry of Education, Jilin University, Changchun, 130023, Peop. Rep. China
SO Journal of Physical Chemistry B (2003), 107(27), 6535-6538

CODEN: JPCBFK; ISSN: 1520-6106
PB American Chemical Society
DT Journal
LA English
IT 575433-07-7P
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(metal determination by absorption spectroscopy and titration with conjugated
polymers and effects of rigidity of mol. recognition sites on metal ion sensing)
RN 575433-07-7 CAPLUS
CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



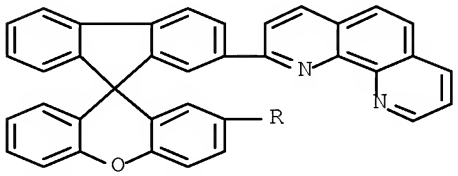
I

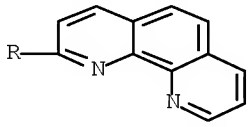
AB The invention refers to a spiro compd. I [A1,2 = single bond, (un)substituted alkyl, ether, thioether, ketone or amine chain; B = C, or Si' R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and adjacent groups can be joined to form rings] suitable for use in electroluminescent devices.
AN 2003:257884 CAPLUS Full-text
DN 138:278183

TI Spiro compound for electroluminescent device
IN Kitazawa, Daisuke; Kohama, Toru; Tominaga, Takeshi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003096072	A	20030403	JP 2001-293437	20010926
			JP 2001-293437	20010926

OS MARPAT 138:278183
IT 427375-38-0P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(spiro compound for electroluminescent device)
RN 427375-38-0 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-diyl)bis- (9CI) (CA INDEX NAME)





L4 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB The title device comprises a thin film by stacking an org. layer contg. at least an organic luminous layer and an electronic transporting layer formed from an organic compound with mol. weight above 400 on the first electrode which was formed on the baseplate, and the second electrode on the formed thin layer. Part of the electronic transporting layer is doped by donor impurity, the above organic compound possibly has the chelate coordinated side of donor impurity. The title device has high radiance efficiency, low drive voltage, and high durability.
AN 2002:925575 CAPLUS Full-text
DN 138:30828
TI Organic electroluminescence devices
IN Takano, Akiko; Tominaga, Takeshi; Asuka, Noboru
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

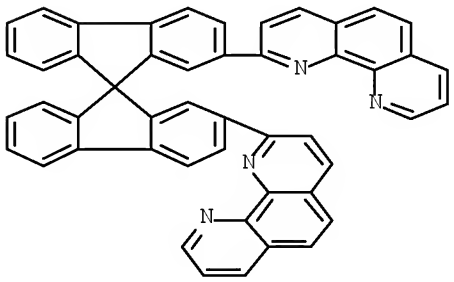
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 2002352961 A 20021206 JP 2001-157544 20010525
JP 2001-157544 20010525

IT 252878-73-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescence devices)

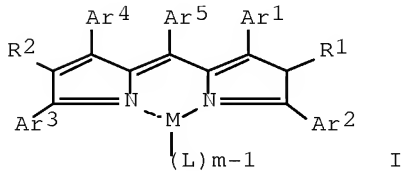
RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



L4 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

GI



I

AB Pyrromethene metal complexes are described by the general formula I (R1, R2, and each L = independently selected H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halogen, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl, and fused aromatic and alicyclic rings formed from Ar1-4 and L; M + a metal having a valence of m selected from boron, beryllium, magnesium, chromium, iron, nickel, copper, zinc, and platinum; and Ar1-5 = independently selected optionally substituted aryl groups with the proviso that any of Ar1-4, together with an adjacent group selected from R1, R2 and the or each group L may form a fused aromatic or alicyclic ring). Light-emitting devices comprising ≥1 of a diketopyrrolo[3,4-c]pyrrole derivative and an organic fluorescent material having a fluorescent peak wavelength in the range 580-720 nm; and a light-emitting device composition containing I are also described.

AN 2002:831834 CAPLUS Full-text

DN 137:343709

TI Pyrromethene metal complexes and light emitting device composition and light emitting devices using the same

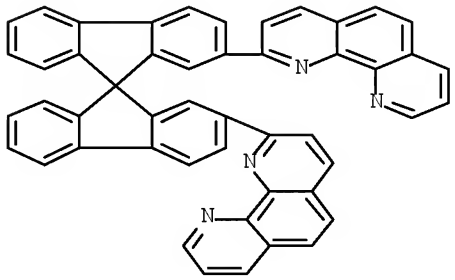
IN Murase, Seiichiro; Tominaga, Tsuyoshi; Kohama, Akira

PA Toray Industries, Inc., Japan

SO Eur. Pat. Appl., 54 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

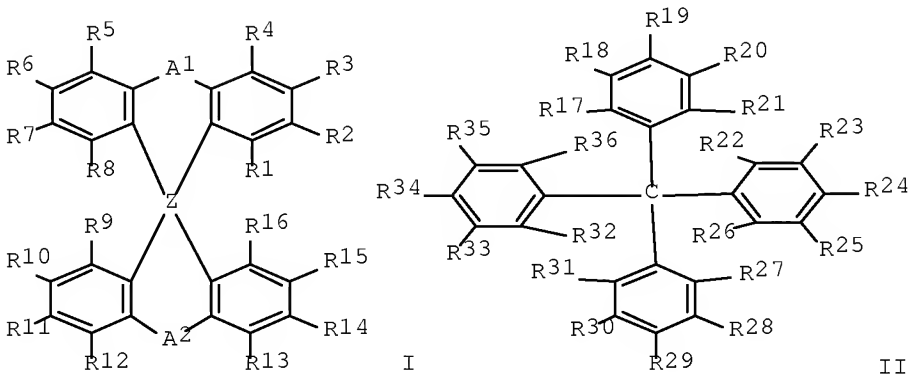
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI EP 1253151	A1	20021030	EP 2002-252947		20020425
EP 1253151	B1	20050112			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
TW 565604	B	20031211	TW 2002-91107585		20020415
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
JP 2003012676	A	20030115	JP 2002-117229		20020419
JP 4000893	B2	20071031			
			JP 2001-127311	A	20010425
US 2003082406	A1	20030501	US 2002-126652		20020422
US 6805978	B2	20041019			
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
SG 121713	A1	20060526	SG 2002-2483		20020424
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
CN 1390841	A	20030115	CN 2002-124569		20020425
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
AT 286903	T	20050115	AT 2002-252947		20020425
			JP 2001-127311	A	20010425
			JP 2001-158325	A	20010528
CN 1690162	A	20051102	CN 2005-10071206		20020425
			JP 2001-127311	A	20010425
			CN 2002-124569	A3	20020425
JP 2003086379	A	20030320	JP 2002-150546		20020524
			JP 2001-158325	A	20010528

OS MARPAT 137:343709
IT 252878-73-2P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(pyrromethene metal complexes and light-emitting device compns. and the devices)
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



AB The invention refers to an electroluminescent material comprising at least one of the following: a compound with 1,7-phenanthroline skeletons, a benzoquinoline derivative, a spiro-compound I and a tetraphenylmethane derivative II [A1,2 = single bond, (un)substituted alkyl, ether thioether ketone amino chain, A1 ≠ A2; Z = C or Si; R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, arylether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings; R17-36 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl alkynyl, hydroxyl, mercapto, alkoxy, alkylthio, aryl ether, aryl thioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, cyano, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl or siloxanyl, and adjacent groups may join together to form rings, wherein at least one of R17-36 is -XAr; X = single bond, -(CH2)n-, O, S, -(Ph)n- or trivalent phosphor oxide; Ar = condensed aromatic or heterocyclic, and when X = trivalent phosphor oxide, Ar = aromatic hydrocarbon or heterocyclic].

AN 2002:408990 CAPLUS Full-text
DN 136:393083
TI Electroluminescent material and component
IN Tominaga, Tsuyoshi; Kitazawa, Daisuke; Makiyama, Aki; Kohama, Akira
PA Toray Industries, Inc., Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002043449	A1	20020530	WO 2001-JP10214	20011122
	W: CN, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

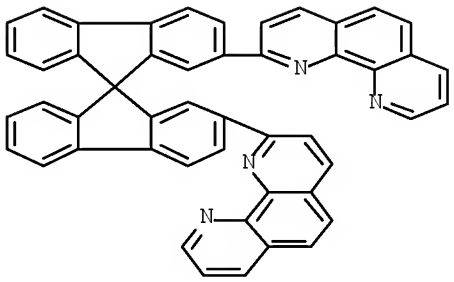
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
JP 2002222697	A	20020809	JP 2001-357312	20011122
JP 3899907	B2	20070328		
			JP 2000-357129	A 20001124
EP 1341403	A1	20030903	EP 2001-997977	20011122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			WO 2001-JP10214	W 20011122
TW 572993	B	20040121	TW 2001-90128901	20011122
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
CN 1658724	A	20050824	CN 2005-10058976	20011122
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
CN 1956237	A	20070502	CN 2006-10143103	20011122
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			CN 2001-804068	A3 20011122
CN 1956238	A	20070502	CN 2006-10143104	20011122
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			CN 2001-804068	A3 20011122
JP 2003059669	A	20030228	JP 2002-163997	20020605
			JP 2001-173610	A 20010608
US 2003168970	A1	20030911	US 2002-221342	20020911
US 7318966	B2	20080115		
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			WO 2001-JP10214	W 20011122
KR 2007118711	A	20071217	KR 2007-727441	20071126
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			WO 2001-JP10214	W 20011122
			KR 2002-709422	A3 20020723
KR 2007118712	A	20071217	KR 2007-727442	20071126
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			WO 2001-JP10214	W 20011122
			KR 2002-709422	A3 20020723
KR 2008003446	A	20080107	KR 2007-727443	20071126
			JP 2000-357129	A 20001124
			JP 2001-173610	A 20010608
			WO 2001-JP10214	W 20011122
			KR 2002-709422	A3 20020723

OS MARPAT 136:393083

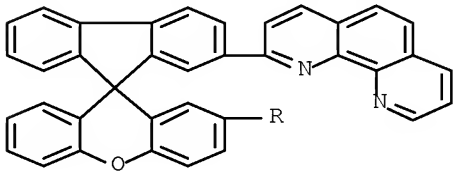
IT 252878-73-2
RL: DEV (Device component use); USES (Uses)
(luminescent material and component)

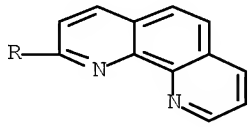
RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



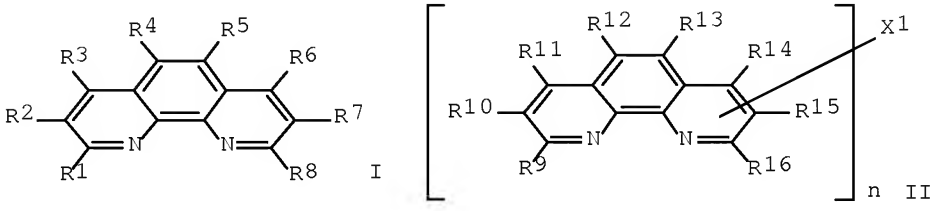
IT 427375-38-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(luminescent material and component)
RN 427375-38-0 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(spiro[9H-fluorene-9,9'-[9H]xanthene]-2,2'-diyl)bis- (9CI) (CA INDEX NAME)





RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



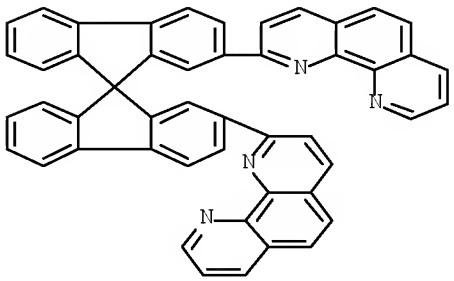
AB The devices comprise a pair of electrodes interposing a phosphor layer containing a phenanthroline derivs. I and II (R1-16 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, OH, SH, alkoxy, alkylthio, arylether,

arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkene, haloalkyne, CN, aldehyde, carbonyl, carboxyl, ester, carbamoyl, amino, nitro, silyl, siloxanyl; n ≥ 2; and X1 = single bond, bonding between phenanthroline groups).

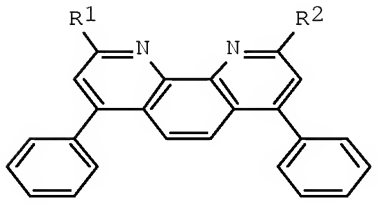
AN 2001:712868 CAPLUS Full-text
DN 135:280166
TI Organic electroluminescent devices
IN Tominaga, Takeshi; Makiyama, Akira; Kohama, Toru
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001267080	A	20010928	JP 2000-372543	20001207
			JP 2000-6933 A	20000114

OS MARPAT 135:280166
IT 252878-73-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent devices)
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



L4 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

AB Bathophenanthroline compds. are described by the general formula I (R1 and R2 = independently selected linear, branched, or cyclic (un)saturated

(un)substituted hydrocarbon groups provided that ≥1 of R1 and R2 has ≥2 carbon atoms; or R1 and R2 = independently selected (un)substituted aryl groups). Methods for preparing the compds. are described which entail carrying out a nucleophilic substitution reaction between bathophenanthroline and an appropriate organolithium compound The compds. may be used as organic layers (e.g., charge transport layers) in electroluminescent devices.

AN 2001:338137 CAPLUS Full-text
DN 134:346297
TI Bathophenanthroline compound and process for preparing same
IN Shibanuma, Tetsuo; Kijima, Yasunori; Asai, Nobutoshi; Tamura, Shinichiro
PA Sony Corporation, Japan
SO Eur. Pat. Appl., 64 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	EP 1097980	A2	20010509	EP 2000-123668		20001030
	EP 1097980	A3	20030924			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
				JP 1999-312071	A	19991102
	JP 2001131174	A	20010515	JP 1999-312071		19991102
	US 6972334	B1	20051206	US 2000-704968		20001102
				JP 1999-312071	A	19991102
	US 2005073641	A1	20050407	US 2003-656659		20030905
				JP 1999-312071	A	19991102
				US 2000-704968	A1	20001102
	US 2004265626	A1	20041230	US 2004-798820		20040311
	US 7186469	B2	20070306			
				JP 1999-312071	A	19991102
				US 2000-704968	A1	20001102
	US 2005154208	A1	20050714	US 2005-62076		20050221
				JP 1999-312071	A	19991102
				US 2000-704968	A1	20001102
				US 2003-656659	A3	20030905

PATENT FAMILY INFORMATION:

FAN 2001:261095

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	EP 1090911	A2	20010411	EP 2000-121754		20001005
	EP 1090911	A3	20010808			
	EP 1090911	B1	20060830			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
				JP 1999-285254	A	19991006
	JP 2001106657	A	20010417	JP 1999-285254		19991006
	US 7049470	B1	20060523	US 2000-680371		20001005
				JP 1999-285254	A	19991006
	US 2006178522	A1	20060810	US 2005-153878		20050615
	US 7196225	B2	20070327			
				JP 1999-285254	A	19991006
				US 2000-680371	A1	20001005

FAN 2001:269310

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	JP 2001106658	A	20010417	JP 1999-285255		19991006
	EP 1092704	A2	20010418	EP 2000-121753		20001005
	EP 1092704	A3	20010425			

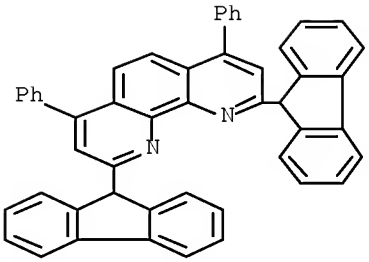
EP 1092704		B1	20060308			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO						
				JP 1999-285255	A	19991006
US 6492557		B1	20021210	US 2000-680386		20001005
				JP 1999-285254	A	19991006
				JP 1999-285255	A	19991006
US 2003069448		A1	20030410	US 2002-231355		20020829
US 6727379		B2	20040427			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
US 2003073867		A1	20030417	US 2002-231419		20020829
US 6897341		B2	20050524			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
US 2003204115		A1	20031030	US 2003-389787		20030317
US 6790974		B2	20040914			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231419	A3	20020829
US 2003212289		A1	20031113	US 2003-390381		20030317
US 6765108		B2	20040720			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231355	A3	20020829
US 2003220523		A1	20031127	US 2003-392435		20030319
US 6774257		B2	20040810			
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2002-231419	A3	20020829
US 2005052133		A1	20050310	US 2004-955792		20040930
				JP 1999-285255	A	19991006
				US 2000-680386	A3	20001005
				US 2000-704968	A3	20001102
				US 2002-231419	A3	20020829
US 2005215811		A1	20050929	US 2005-105082		20050413
US 7087310		B2	20060808			
				JP 1999-285255	A	19991006
				US 2000-680386	A1	20001005
				US 2002-231419	A1	20020829

OS MARPAT 134:346297

IT 338734-80-8P
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(bathophenanthroline derivs. and their preparation and use in electroluminescent devices)

RN 338734-80-8 CAPLUS

CN 1,10-Phenanthroline, 2,9-di-9H-fluoren-9-yl-4,7-diphenyl- (CA INDEX NAME)



L4 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Two new dyads were synthesized in which terminal Ru(II) and Os(II) polypyridine complexes are separated by sterically constrained spiro bridges. The photophys. properties of the corresponding mononuclear complexes indicate the importance of the decay of the lowest-energy triplet states localized on the metallo fragments through the higher-energy metal-centered excited states. This effect is minimized at 77 K, where triplet lifetimes are relatively long, and for the Os(II)-based systems relative to their Ru(II)-based counterparts. Intramol. triplet energy transfer takes place from the Ru(II)-based fragment to the appended Os(II)-based unit, the rate constant being dependent on the mol. structure and on temperature In all cases, the exptl. rate constant matches surprisingly well with the rate constant calculated for Forster-type dipole-dipole energy transfer. As such, the disparate rates shown by the two compds. can be attributed to stereochem. factors. Further the spiro bridging unit does not favor through-bond electron exchange interactions, a situation confirmed by cyclic voltammetry.

AN 2000:463590 CAPLUS Full-text
DN 133:216829

TI Mono- and Dinuclear Ruthenium(II) and Osmium(II) Polypyridine Complexes Built around Spiro-Bridged Bis(phenanthroline) Ligands: Synthesis, Electrochemistry, and Photophysics

AU Juris, Alberto; Prodi, Luca; Harriman, Anthony; Ziessel, Raymond; Hissler, Muriel; El-ghayoury, Abdelkrim; Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.
CS Dipartimento di Chimica G. Ciamician, Universita di Bologna, Bologna, 40126, Italy

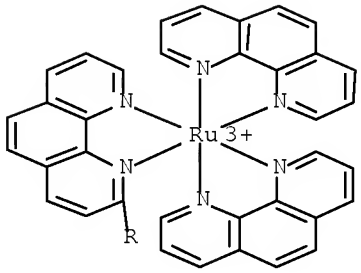
SO Inorganic Chemistry (2000), 39(16), 3590-3598
CODEN: INOCAJ; ISSN: 0020-1669
PB American Chemical Society
DT Journal
LA English

IT 289912-28-3 289912-29-4 289912-43-2
289912-45-4 289912-47-6 289912-49-8
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(elec. potential of couple containing)

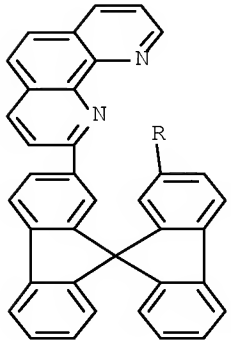
RN 289912-28-3 CAPLUS

CN Ruthenium(3+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



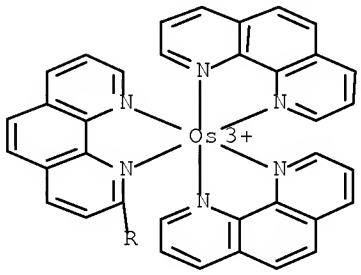
PAGE 2-A



RN 289912-29-4 CAPLUS

CN Osmium(3+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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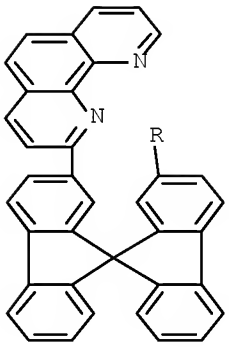
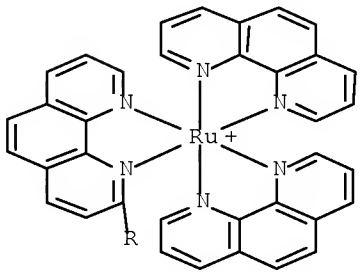


RN 289912-43-2 CAPLUS

CN Ruthenium(1+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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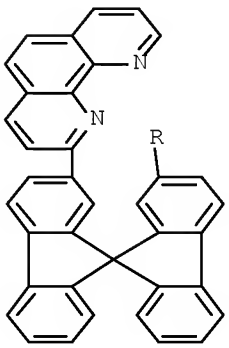
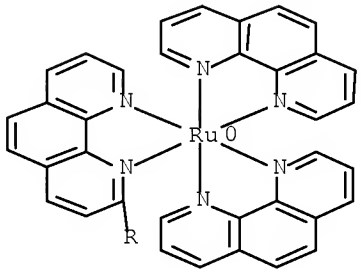


RN 289912-45-4 CAPLUS

CN Ruthenium, bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-

κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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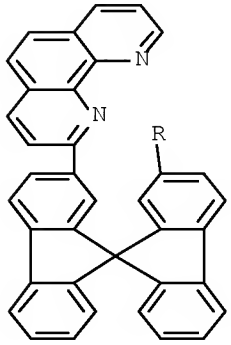
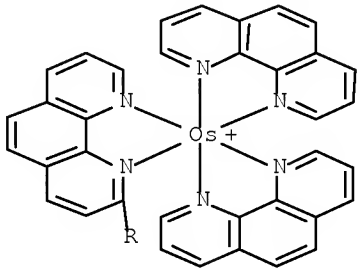


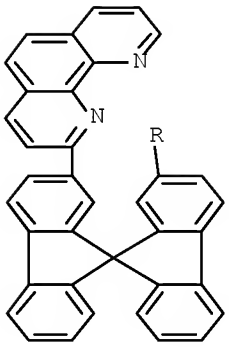
RN 289912-47-6 CAPLUS

CN Osmium(1+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



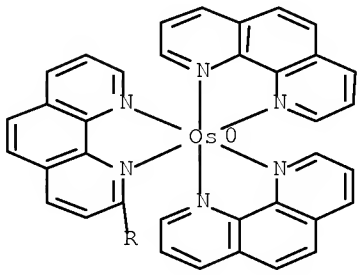
PAGE 2-A



RN 289912-49-8 CAPLUS

CN Osmium, bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)- (CA INDEX NAME)

PAGE 1-A



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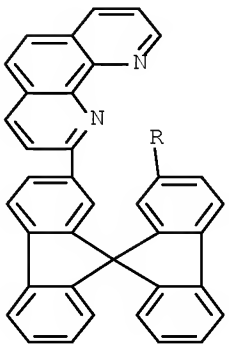


IT 253141-13-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, electrochem. redox and photophysics)

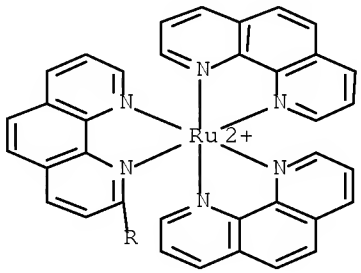
RN 253141-13-8 CAPLUS

CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

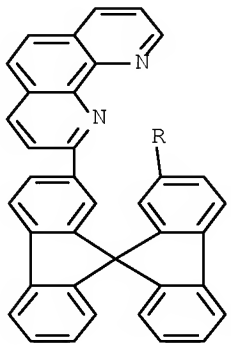
CM 1

CRN 253141-12-7
CMF C73 H44 N8 Ru
CCI CCS

PAGE 1-A

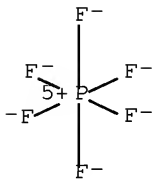


PAGE 2-A



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



IT 289912-18-1P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, electrochem. redox, photophysics and reaction to give heterodinuclear ruthenium(II)-osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)

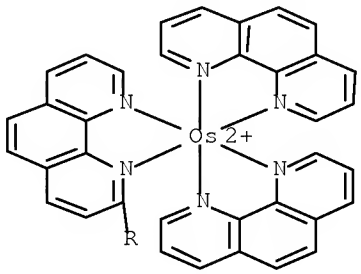
RN 289912-18-1 CAPLUS

CN Osmium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 289912-17-0
CMF C73 H44 N8 Os
CCI CCS

PAGE 1-A



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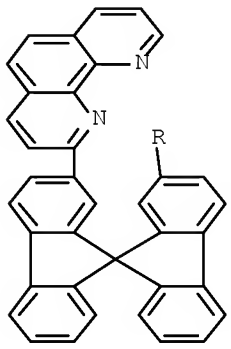
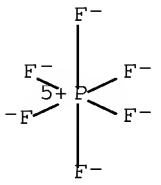
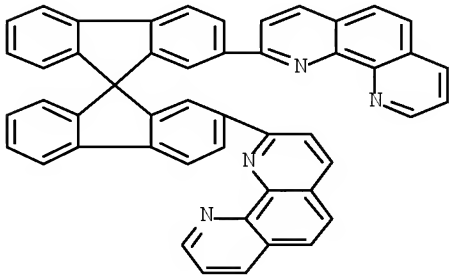


CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



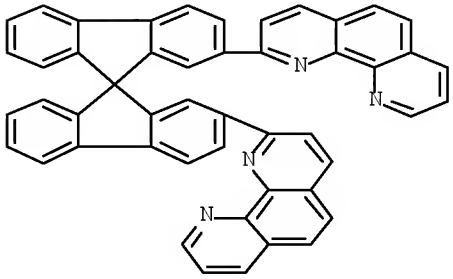
IT 252878-73-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of mono- and dinuclear ruthenium(II) and osmium(II) spiro-bridged bis(phenanthroline) derivative complexes)
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB The syntheses of novel sol. ditopic 1,10-phenanthroline ligands bearing a central spiro-[5.5]undecane or a spiro-[5.5]bifluorylidene fragment are reported. The synthetic approach is based on a Friedlander condensation between 8-amino-7-quinolinecarboxaldehyde and either 3,9-diketospiro[5.5]undecane or 2,2'-diacetylspiro[5.5]bifluorylidene derivs. Reaction of the latter with phenylhydrazine and subsequent cyclization afforded 2,2'-di-(2"-indolyl)-[5.5]spirobifluorylidene. The photophys. properties of the new compds. are briefly discussed and Ru(II) and Cu(I) complexes were prepared
AN 1999:655149 CAPLUS Full-text
DN 132:64193
TI Closely-spaced chelating centers: synthesis of novel spiro-bridged bis-phenanthrolines and bis-indole derivatives
AU Wu, Feiyue; Riesgo, Elvira C.; Thummel, Randolph P.; Juris, Alberto; Hissler, Muriel; El-Ghayoury, Abdelkrim; Ziessel, Raymond

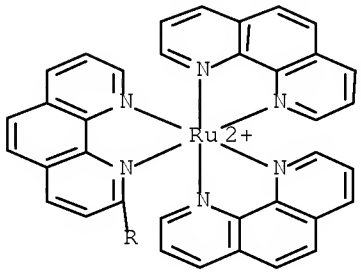
CS Department of Chemistry, University of Houston, Houston, TX, 77204-5641, USA
SO Tetrahedron Letters (1999), 40(41), 7311-7314
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 132:64193
IT 252878-73-2P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of spirocyclic bis(phenanthrolines) and bis(indoles))
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)

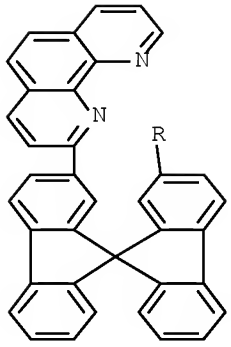


IT 253141-13-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of spirocyclic bis(phenanthrolines) and bis(indoles))
RN 253141-13-8 CAPLUS
CN Ruthenium(2+), bis(1,10-phenanthroline-κN1,κN10)[2-[2'-(1,10-phenanthrolin-2-yl)-9,9'-spirobi[9H-fluoren]-2-yl]-1,10-phenanthroline-κN1,κN10]-, (OC-6-33)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

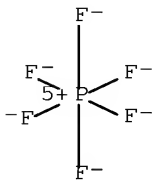
CRN 253141-12-7
CMF C73 H44 N8 Ru
CCI CCS





CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



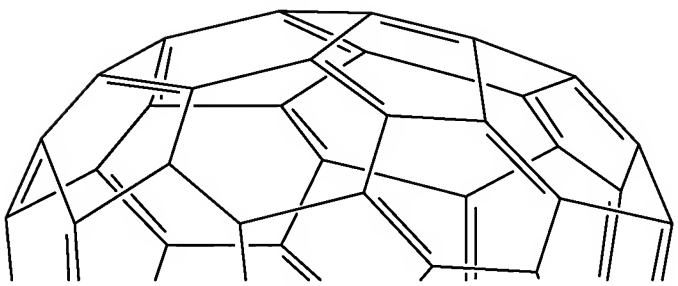
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The macrocyclization between buckminsterfullerene, C60, and bis-malonate derivs. in a double Bingel reaction provides a versatile and simple method for the preparation of covalent bis-adducts of C60 with high regio- and diastereoselectivity. A combination of spectral anal., stereochem. considerations, and x-ray crystallog. revealed that out of the possible in-in, in-out, and out-out stereoisomers, the reaction of bis-malonates linked by 1,2-, 1,3-, or 1,4-xylylene tethers afforded only the out-out ones. In contrast, the use of larger tethers derived from 1,10-phenanthroline also provided a first example of an in-out product. Starting from optically pure bis-malonate derivs., the new bis-functionalization method permitted the diastereoselective preparation of optically active fullerene derivs. and, ultimately, the enantioselective preparation (>97% ee) of optically active cis-3 bis-adducts whose chirality results exclusively from the addition pattern. The macrocyclic fixation of a bis-malonate with an optically active, 9,9'-spirobi[9H-fluorene]-derived tether to C60 under generation of a bis-adduct with an achiral addition pattern induces dramatic changes in the chiroptical properties of the tether chromophore such as strong enhancement and reversal of sign of the Cotton effects in the CD spectra. By the same

method, functionalized bis-adducts were prepared as initiator cores for the synthesis of fullerene dendrimers by convergent growth. Finally, the new methodol. was extended to the regio- and diastereoselective construction of higher cyclopropanated adducts. Electrochem. investigations by steady-state voltammetry in CH_2Cl_2 showed that all macrocyclic bis(methano)fullerenes underwent multiple reduction steps, and that regioisomerism was not much influencing the redox potentials. All cis-2 bis-adducts gave an instable dianion which decomposed during the electrochem. reduction In CH_2Cl_2, the redox potential of the fullerene core in the dendrimers is not affected by differences in size and d. of the surrounding poly(ether-amide) dendrons. All-cis-2 tris- and tetrakis(methano)fullerenes are reduced at more neg. potential than previously reported all-e tris- and tetrakis-adducts with methano bridges that are also located along an equatorial belt. This indicates a larger perturbation of the original fullerene π-chromophore and a larger raise in LUMO energy in the former derivs.

AN 1997:727152 CAPLUS Full-text
DN 128:75385
TI Macrocyclization on the fullerene core. Direct regio- and diastereoselective multi-functionalization of [60]fullerene, and synthesis of fullerene-dendrimer derivatives
AU Nierengarten, Jean Francois; Habicher, Tilo; Kessinger, Roland; Cardullo, Francesca; Diederich, Francois; Gramlich, Volker; Gisselbrecht, Jean Paul; Boudon, Corinne; Gross, Maurice
CS Lab. Organische Chem., ETH-Zentrum, Zurich, CH-8092, Switz.
SO Helvetica Chimica Acta (1997), 80(7), 2238-2276
CODEN: HCACAV; ISSN: 0018-019X
PB Verlag Helvetica Chimica Acta
DT Journal
LA English
OS CASREACT 128:75385
IT 200353-01-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fullerene dendrimers and multifunctionalized fullerenes by macrocyclization on fullerene core and redox properties thereof)
RN 200353-01-1 CAPLUS
CN 3'H-Cyclopropa[1,9:16,17][5,6]fullerene-C60-Ih-3',3'-dicarboxylic acid, 1,10-phenanthroline-3,8-diylbis(methylene) diethyl ester (9CI) (CA INDEX NAME)



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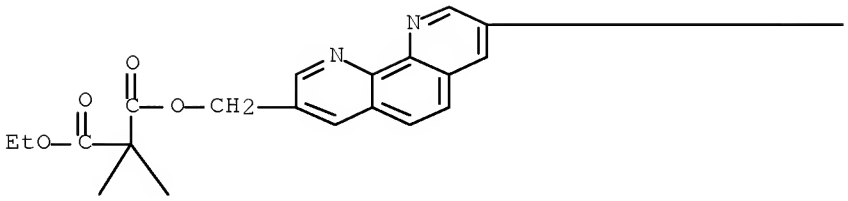

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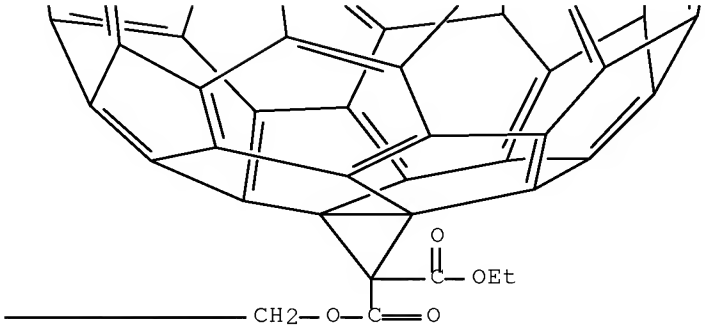

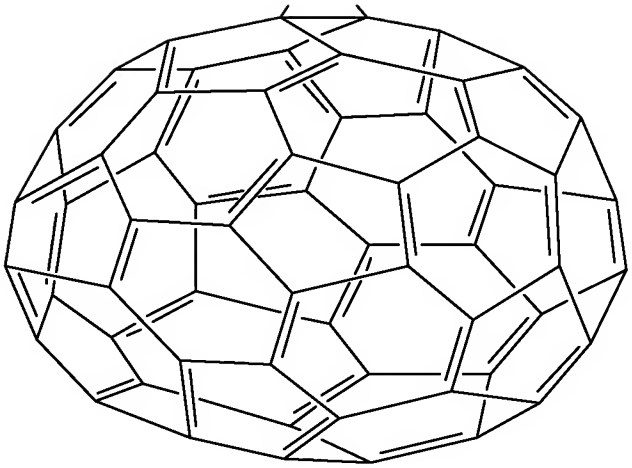

L4 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
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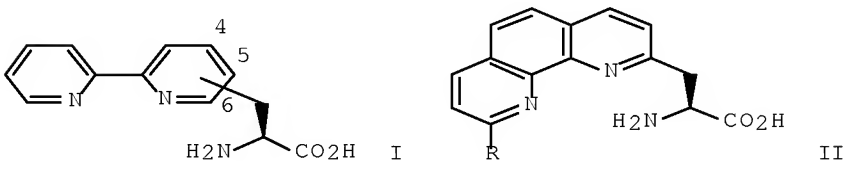


AB The ability to tune the metal binding affinity of small peptides through the incorporation of unnatural multidentate α-amino acids and the preorganization of peptide structure is illustrated. Herein, the exploitation of a family α-amino acids that incorporate powerful bidentate ligands (bipyridyl and phenanthrolyl groups) as integral constituents of the side chains is described. The residues involved are the 6-, 5-, and 4-substituted (S)-2-amino-3-(2,2'-bipyridyl)propanoic acids (I) and (S)-2-amino-3-(1,10-phenanthrol-2-yl)propanoic acids II (R = H, Me). Within this family of amino acids, variations in metal binding due to the nature of the ring system (2,2'-bipyridyl or 1,10-phenanthrolyl) and the point of attachment to the amino acid β-carbon are observed Addnl., the underlying peptide architecture significantly influences binding for peptides that include multiple metal-ligating residues. These differences in affinity arise from the interplay of ligand type and structural preorganization afforded by the peptide sequence, resulting in dissociation consts. ranging from 10-3 to <10-6 M for ZnII. These studies illustrate that significant control of metal cation binding affinity, preference, and stoichiometry may be achieved through the use of a wide variety of native and unnatural metal-coordinating amino acids incorporated into a polypeptide architecture.

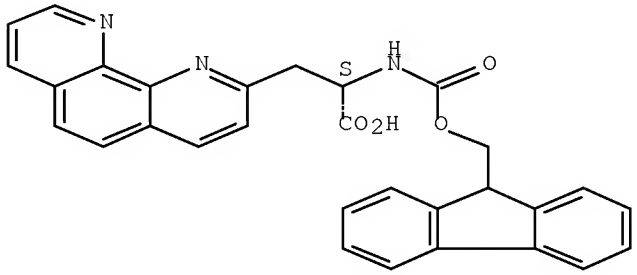
AN 1996:657128 CAPLUS Full-text
DN 126:19209

TI Metallopeptide Design: Tuning the Metal Cation Affinities with Unnatural Amino Acids and Peptide Secondary Structure

AU Cheng, Richard P.; Fisher, Stewart L.; Imperiali, Barbara

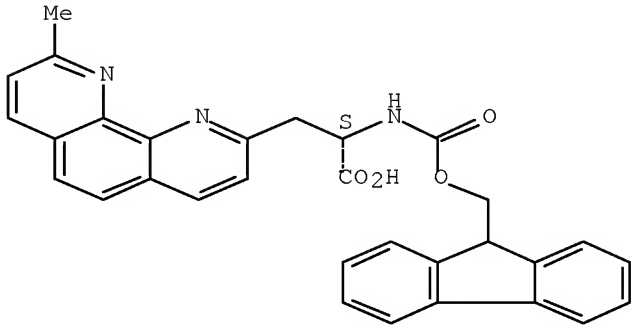
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (1996), 118(46), 11349-11356
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 126:19209
IT 176435-49-7P 184152-94-1P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and metal binding of bipyridylalanine- and phenanthrolylalanine-
containing peptides)
RN 176435-49-7 CAPLUS
CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 184152-94-1 CAPLUS
CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-9-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



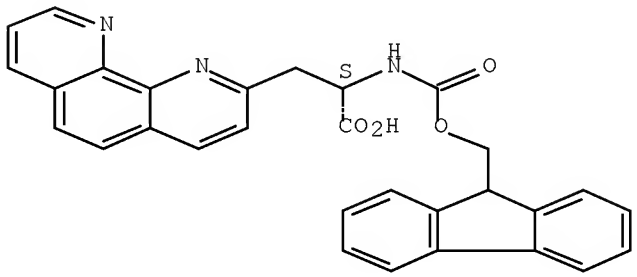
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB An iterative design process involving the synthesis and structural analyses of five polypeptides patterned after the zinc finger domains is described. This

process has led to the development of a metal-independent 23-reside folded ββα peptide amide BBA1. In contrast to the zinc fingers and other naturally occurring peptides of similar size, this small monomeric structure folds without the assistance of metal cation ligation or disulfide bridges. To probe the effect of metal binding on the secondary and tertiary structure of peptides throughout the design process, a non-standard amino acid 3-(1,10-phenanthrol-2-yl)-L-alanine (Fen) was incorporated and its unique chromophore utilized for CD anal. Advanced designs were analyzed by both CD and 2-dimensional NMR. The solution structure of BBA1 was determined using NOE restrained simulated annealing. The average RMSD for the backbone atoms of residues 1-22 is 0.9 ± 0.3 Å. Anal. of the resulting structure reveals that the α-helix and β-hairpin are associated via a well-defined hydrophobic core including several key hydrophobic residues. A key design feature of BBA1 is the utilization of a type II' reverse turn to promote β-hairpin formation; a control peptide, in which the β-turn of BBA1 was changed from a type II' to a type II, lacks tertiary structure. Thus the effects of the turn type on the three-dimensional structure of this motif are dramatic. Thus, BBA1 defines a new lower limit for the size of an independently folded polypeptide with native structure.

AN 1996:161709 CAPLUS Full-text
DN 124:317843
TI Economy in Protein Design: Evolution of a Metal-Independent ββα Motif Based on the Zinc Finger Domains
AU Struthers, Mary D.; Cheng, Richard P.; Imperiali, Barbara
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (1996), 118(13), 3073-81
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
IT 176435-49-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and conformation of metal-free zinc finger peptide model)
RN 176435-49-7 CAPLUS
CN 1,10-Phenanthroline-2-propanoic acid, α-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

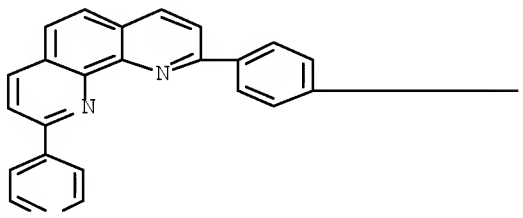


L4 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB A three-component complex consisting of a coordinating ring, a copper(I) center and a difunctionalized fragment threaded inside the ring is reacted with a C60 derivative to afford a soluble rotaxane with two fullerenes as stoppers in 15% yield.

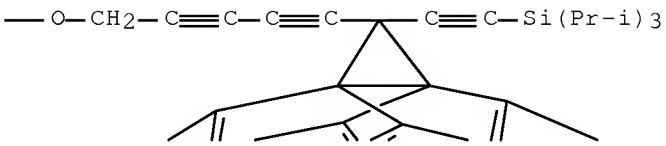
AN 1995:510099 CAPLUS Full-text
DN 122:305209
TI A copper(I)-complexed rotaxane with two fullerene stoppers
AU Diederich, Francois; Dietrich-Buchecker, Christiane; Nierengarten, Jean-Francois; Sauvage, Jean-Pierre
CS Lab. fuer Org. Chem., ETH-Zentrum, Zuerich, CH-8092, Switz.
SO Journal of the Chemical Society, Chemical Communications (1995), (7), 781-2
CODEN: JCCCAT; ISSN: 0022-4936
PB Royal Society of Chemistry
DT Journal
LA English
IT 163236-31-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 163236-31-5 CAPLUS
CN 2,29:3,6:20,23:24,26-Tetraetheno-7,10,13,16,19,1,25-benzopentaoxadiazacycloheptacosine, 8,9,11,12,14,15,17,18-octahydro-, compd. with 2,9-bis[4-[[5-[3'-[[tris(1-methylethyl)silyl]ethynyl]-3'H-cyclopropa[1,9][5,6]fulleren-C60-Ih-3'-yl]-2,4-pentadiynyl]oxy]phenyl]-1,10-phenanthroline (1:1) (9CI) (CA INDEX NAME)

CM 1

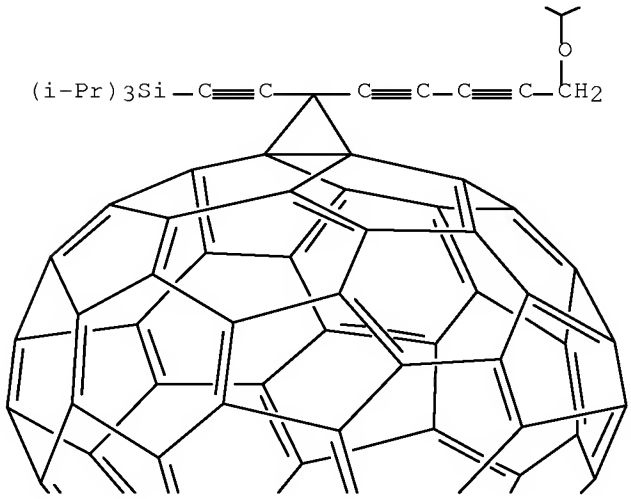
CRN 162994-21-0
CMF C178 H60 N2 O2 Si2



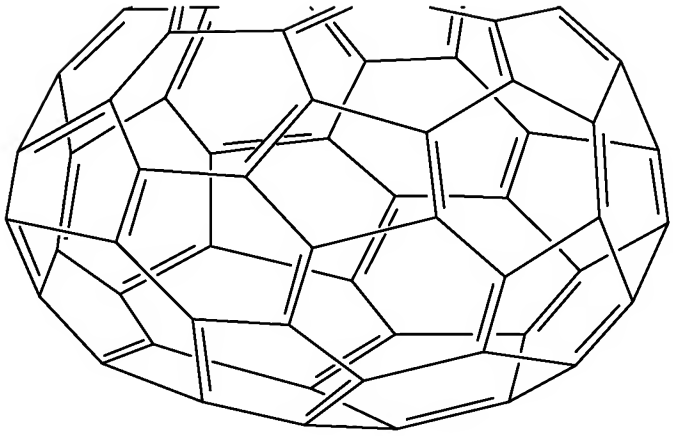
PAGE 1-B



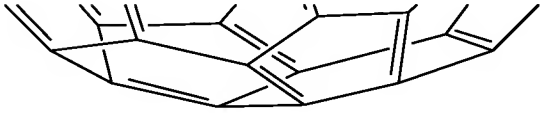
PAGE 2-A



PAGE 2-B

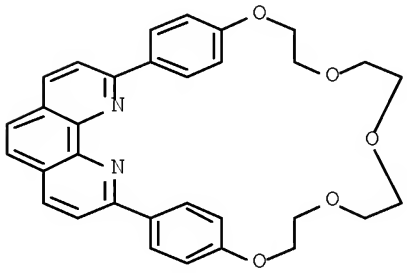


PAGE 3-A



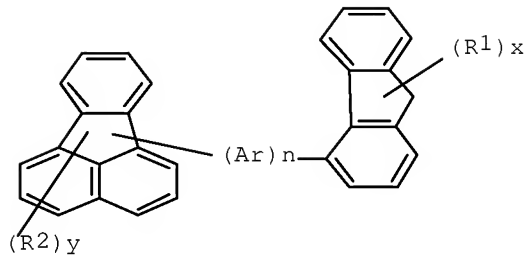
CM 2

CRN 89333-98-2
CMF C32 H30 N2 O5



=> d abs fbib hitstr 1-29

L4 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

AB The present invention provides a high-performance org. light-emitting device based on a novel 4-arylfluorene organic compound having the following general formula (I); where n represents an integer of 0 to 10; when n represents 0, Ar represents a direct bond between a fluorene group and a fluoranthene group; when n represents an integer of 1 to 10, Ar represents a substituted or unsubstituted, divalent alkylene group, a substituted or unsubstituted, divalent aralkylene group, a substituted or unsubstituted, divalent arylene group, or a substituted or unsubstituted, divalent heterocyclic group; when n represents an integer of 1 to 10, Ar's may be the same as or different from each other; R1 and R2 each represent a substituted or unsubstituted group such as alkyl, aralkyl, alkoxy, aryl, heterocyclic, amino; a cyano group, or a halogen group, and R1 and R2 may be the same as or different from each other; x and y each represent an integer of 0 to 9; and when x or y represents an integer of 2 or more, R1s or R2s may be the same as or different from each other, or R1s or R2s may be bonded to each other to form a ring. The organic light-emitting device of the present invention is an organic light-emitting device including: a pair of electrodes comprising an anode and a cathode; and an organic compound layer interposed between the pair of electrodes, where the organic compound layer contains the 4-arylfluorene compound Thus, blue-emitting organic light-emitting devices were fabricated and characterized.

AN 2007:1277963 CAPLUS Full-text
DN 147:511324

TI 4-Arylfluorene compound and organic light-emitting devices employing the 4-arylfluorene compound as an emitting layer

IN Yamada, Naoki; Saitoh, Akihito; Kamatani, Jun; Igawa, Satoshi; Okada, Shinjiro
PA Canon Kabushiki Kaisha, Japan

SO PCT Int. Appl., 49pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

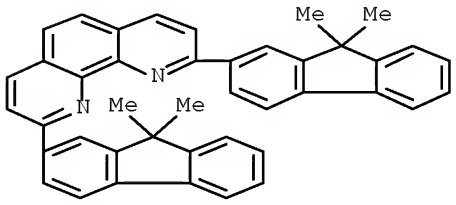
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007125809	A1	20071108	WO 2007-JP58476	20070412

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM

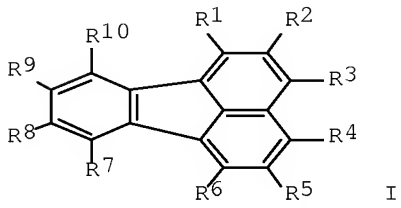
			JP 2006-123784	A	20060427
			JP 2006-310380	A	20061116
JP 2007314506	A	20071206	JP 2006-310380		20061116
			JP 2006-123784	A	20060427

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting layer; blue-emitting 4-arylfluorene compound for use in organic light-emitting devices employing)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

AB A fluoranthene deriv. represented by the following general formula I is described where R1-R10 are each independently selected from a hydrogen atom, a halogen atom, a substituted amino group, a linear or branched alkyl group and other groups shown in the text. An organic light emitting device comprising the fluoranthene derivative is also described.

AN 2007:1274215 CAPLUS Full-text
DN 147:511314
TI Fluoranthene derivative and organic light emitting device having the same
IN Hashimoto, Masashi; Saitoh, Akihito; Yamada, Naoki; Igawa, Satoshi; Kamatani, Jun; Takiguchi, Takao; Okada, Shinjiro
PA Canon Kabushiki Kaisha, Japan
SO PCT Int. Appl., 51pp.
CODEN: PIXXD2
DT Patent
LA English

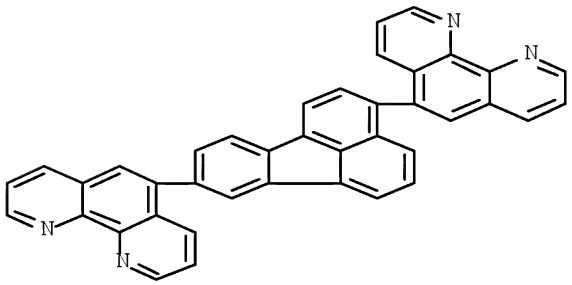
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007126112	A1	20071108	WO 2007-JP59351	20070424
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
				JP 2006-123783	A 20060427
				JP 2007-42663	A 20070222
	JP 2007314510	A	20071206	JP 2007-42663	20070222
				JP 2006-123783	A 20060427

IT 955121-26-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoranthene derivative and organic light emitting device having same)

RN 955121-26-3 CAPLUS

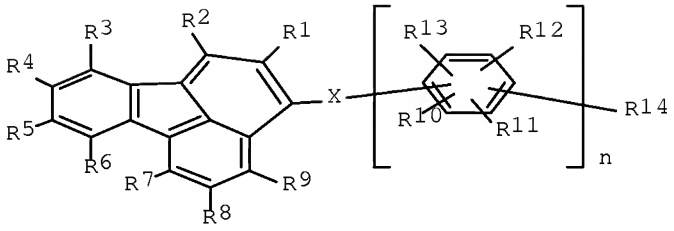
CN 1,10-Phenanthroline, 5-[3-(1,10-phenanthrolin-5-yl)-8-fluoranthenyl]- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

GI



I

AB Fluoranthene derivs. represented by the general formula (I) and org. light-emitting elements using the fluoranthene derivs. as a light-emitting layer or a charge transport layer are provided, where X represents an unsubstituted phenylene group; R1-14 each independently represent a hydrogen atom, a halogen atom, a substituted or an unsubstituted amino group, or a linear, branched, or cyclic alkyl group having 1 to 20 carbon atoms, wherein in the alkyl group, one methylene group or at least two methylene groups which are not adjacent to each other may be substituted with -O-, at least one methylene group may be substituted with an arylene group or a divalent heterocyclic group and a hydrogen atom of the alkyl group may be substituted with a fluorine atom; and n represents an integer from 1 to 10.

AN 2007:1215715 CAPLUS Full-text

DN 147:493783

TI Fluoranthene derivatives and organic light-emitting elements employing the fluoranthene derivatives as a light-emitting layer or a charge transport layer

IN Iwawaki, Hironobu; Negishi, Chika; Okada, Shinjiro; Takiguchi, Takao; Senoo, Akihiro; Hashimoto, Masashi

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 15pp.
CODEN: USXXCO

DT Patent

LA English

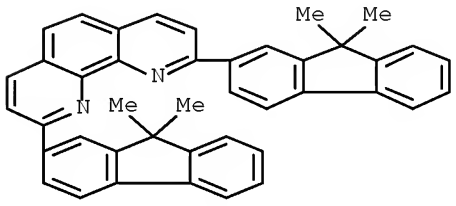
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007249878	A1	20071025	US 2007-737798	20070420
			JP 2006-120805 A	20060425
JP 2007291012	A	20071108	JP 2006-120805	20060425

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting layer; fluoranthene derivs. and organic light-emitting elements employing the fluoranthene derivs. as light-emitting layer or charge transport layer)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The invention relates to a full color org. light emitting element array having red-, green-, and blue-pixels, wherein the glass transition temperature difference between the pixels is lass than 10°.

AN 2007:1151615 CAPLUS Full-text

DN 147:459016

TI Full color organic light emitting element array with improved high temperature performance and durability

IN Hiraoka, Mitsuho; Senoo, Akihiro

PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 16pp.
CODEN: JKXXAF

DT Patent

LA Japanese

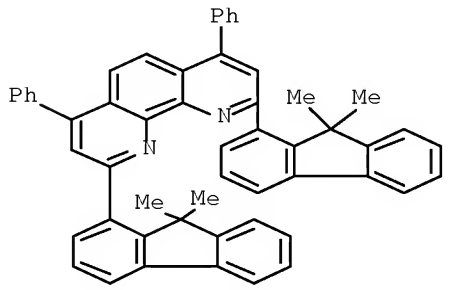
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007266161	A	20071011	JP 2006-87018	20060328
			JP 2006-87018	20060328

IT 952062-18-9
RL: TEM (Technical or engineered material use); USES (Uses)
(in electron transport layer; full color organic light emitting element array with improved high temperature performance and durability)

RN 952062-18-9 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-1-yl)-4,7-diphenyl- (CA INDEX NAME)



L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB An org. electroluminescence device is described comprising a pair of electrodes formed of an anode and a cathode; and an organic compound layer provided between the pair of electrodes, in which the organic electroluminescence device contains a cesium suboxide in which an element ratio A/B calculated from an area ratio of a peak A at a binding energy of 726.0 eV ± 0.5 eV corresponding to a Cs3d5 orbital measured by XPS to a peak B at a binding energy of 531.0 eV ± 0.5 eV corresponding to an O1s orbital measured by the XPS is in a range of 3.1-7.3 or preferably 3.1-4.2, where the organic electroluminescence device has excellent light emitting property that is not largely impaired even after the device is driven for a long time period.

AN 2007:1146673 CAPLUS Full-text

DN 147:436504

TI Organic electroluminescence device and light emitting apparatus

IN Nakamura, Shinichi; Miura, Seishi
PA Canon Kabushiki Kaisha, Japan
SO PCT Int. Appl., 41pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

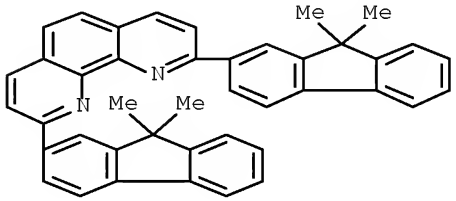
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007113984	A1	20071011	WO 2007-JP54599	20070302

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

			JP 2006-97177	A 20060331
JP 2007273702	A	20071018	JP 2006-97177	20060331

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron injection layer; organic electroluminescence device having organic
compound layer containing cesium suboxide)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



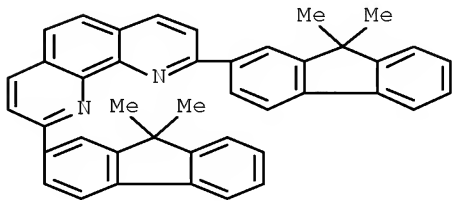
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB A full-color org. electroluminescent panel is described comprising red (R), green (G), and blue (B) color pixels that independently emit light, where the organic electroluminescent panel includes a hole-injecting layer common to the red (R), green (G), and blue (B) color pixels and a plurality of hole-transporting layers, and where the hole-transporting layer in at least one of the red (R), green (G), or blue (B) color pixels differs from a corresponding hole-transporting layer in the remaining pixels.
AN 2007:1121151 CAPLUS Full-text
DN 147:437030
TI Full-color organic electroluminescent panel
IN Iwawaki, Hironobu; Okada, Shinjiro; Takiguchi, Takao; Igawa, Satoshi

PA Canon Kabushiki Kaisha, Japan
SO U.S. Pat. Appl. Publ., 21pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2007228399	A1	20071004	US 2007-689612		20070322
			JP 2006-88353	A	20060328
JP 2007265763	A	20071011	JP 2006-88353		20060328

IT 676542-63-5
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(electron-injecting layer; full-color organic electroluminescent panel having common hole-injecting layer and not-common hole-transporting layer)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB An org. electroluminescent device includes an anode, a cathode, a luminescent layer disposed between the anode and the cathode, and a hole-transporting layer disposed between the anode and the cathode. The luminescent layer includes a first sublayer made of a first metal complex and a second sublayer made of a second metal complex. The second sublayer is disposed further from the hole-transporting layer than the first sublayer.
AN 2007:1120116 CAPLUS Full-text
DN 147:416663
TI Organic electroluminescent device and display apparatus
IN Nakasu, Minako; Igawa, Satoshi; Kamatani, Jun; Ooishi, Ryota; Takiguchi, Takao; Okada, Shinjiro
PA Canon Kabushiki Kaisha, Japan
SO U.S. Pat. Appl. Publ., 11pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

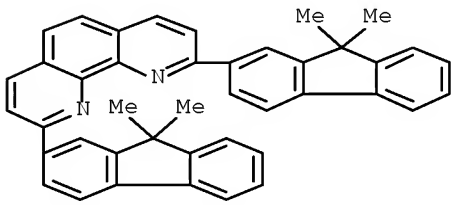
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2007231601	A1	20071004	US 2007-690166		20070323
			JP 2006-87017	A	20060328
			JP 2007-26680	A	20070206
JP 2007294402	A	20071108	JP 2007-26680		20070206
			JP 2006-87017	A	20060328

IT 676542-63-5

RL: TEM (Technical or engineered material use); USES (Uses)
(organic electroluminescent device and display apparatus)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Org. electroluminescent devices are described which comprise a pair of electrodes formed of an anode and a cathode; and an organic compound layer provided between the pair of electrodes, in which: the organic compound layer contains a metal so that the metal partially forms a coordination bond with an organic compound; and a ratio of the number of metal atoms involved in the coordination to the total number of metal atoms in the layer is 0.11 or more to 0.42 or less. The organic electroluminescent device has excellent light emitting property that is not largely impaired even after the device is driven for a long time period.

AN 2007:1120093 CAPLUS Full-text

DN 147:436475

TI Organic electroluminescent device and light emitting apparatus employing an organic layer with partially coordinated metal atoms

IN Nakamura, Shinichi; Miura, Seishi

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 16pp.
CODEN: USXXCO

DT Patent

LA English

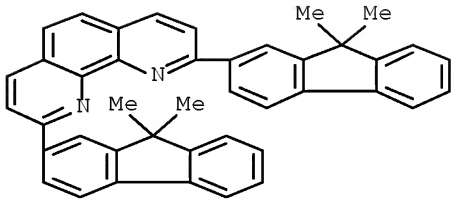
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007231599	A1	20071004	US 2007-681273	20070302
			JP 2006-97178 A	20060331
JP 2007273703	A	20071018	JP 2006-97178	20060331

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting layer; organic electroluminescent device and light emitting apparatus employing organic layer with partially coordinated metal atoms)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB An org. light emitting device array is described comprising org. light emitting devices having each emitting color, the organic light emitting devices each comprising a pair of electrodes, a hole transport layer, a light emitting layer and an electron transport layer, wherein the hole transport layer contacts with the light emitting layer; the light emitting layer contacts with the electron transport layer; and the light emitting layer has a guest material contained in a host material, and wherein each of the organic light emitting devices has an ionization p.d. of not more than 0.2 eV between a material constituting the hole transport layer and the host material and an electron affinity difference of not more than 0.2 eV between a material constituting the electron transport layer and the host material. The organic light emitting device array may further comprise a host material and a hole transport layer, where the electron affinity of host material - electron affinity of the hole transport layer is greater than or equal to 0.2 eV.

AN 2007:1114898 CAPLUS Full-text
DN 147:436412

TI Organic light emitting device array

IN Tanabe, Hiroshi; Senoo, Akihiro; Saitoh, Akihito
PA Canon Kabushiki Kaisha, Japan

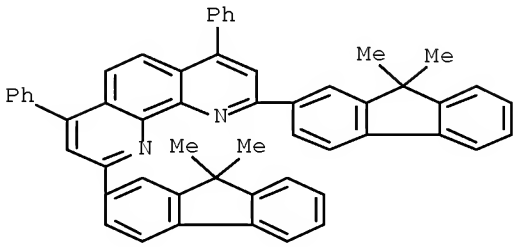
SO PCT Int. Appl., 38pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007111153	A1	20071004	WO 2007-JP55308	20070309
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
			JP 2006-87015	A 20060328
JP 2007266160	A	20071011	JP 2006-87015	20060328

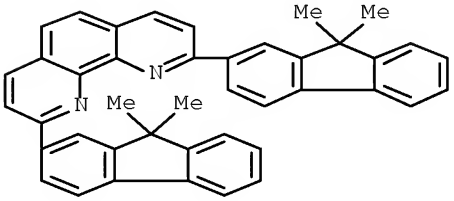
IT 676542-59-9
RL: TEM (Technical or engineered material use); USES (Uses)
(electron emitting layer; organic light emitting device array having specific ionization p.d. between hole transport layer and host material)

RN 676542-59-9 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-diphenyl- (CA INDEX NAME)



IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron injection layer; organic light emitting device array having specific ionization p.d. between hole transport layer and host material)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



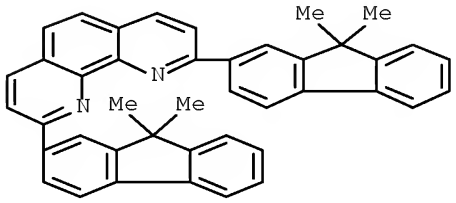
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB Org. light-emitting devices are described which comprise a substrate including at least a base material, at least one organic light-emitting element which includes (a) a pair of electrodes provided on the substrate and an organic compound layer disposed between the pair of electrodes, and (b) provides a light-emitting area, an inorg. sealing layer provided on the organic light-emitting element and the surface of the substrate, and an adhesion layer which is provided between the substrate and the inorg. sealing layer and only on the periphery of the light-emitting area for closely contacting the surface of the substrate and the inorg. sealing layer, and inhibits moisture from intruding at an edge of the inorg. sealing layer.
AN 2007:1092723 CAPLUS Full-text
DN 147:394903
TI Organic light-emitting device employing an adhesion layer provided between substrate and inorganic sealing layer on the periphery of the light-emitting area for inhibiting moisture from intruding at an edge of the inorganic sealing layer
IN Yamazaki, Takuro; Nagayama, Kohei
PA Canon Kabushiki Kaisha, Japan
SO U.S. Pat. Appl. Publ., 16pp.
CODEN: USXXCO

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	US 2007222382	A1	20070927	US 2007-680514		20070228
				JP 2006-79058	A	20060322
				JP 2007-19470	A	20070130
	JP 2007287660	A	20071101	JP 2007-19470		20070130
				JP 2006-79058	A	20060322
	CN 101043070	A	20070926	CN 2007-10088800		20070322
				JP 2006-79058	A	20060322
				JP 2007-19470	A	20070130

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(OLED employing adhesion layer provided between substrate and inorg. sealing layer on periphery of light-emitting area for inhibiting moisture from intruding at edge of inorg. sealing layer)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)

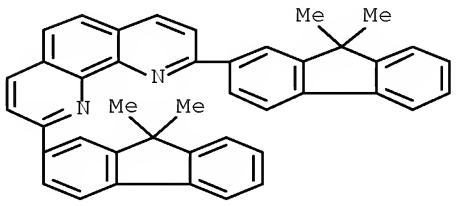


L4 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB Silylanthracenes (R1R2R3Si)b-Y1a-XcC14H10-a-b-c, preferably 9-(R1R2R3Si)-10-Y2-XcC14H8-c [1; R1-R3 = H, halo, (un)substituted alkyl, aralkyl, aryl, heterocyclyl; X = halo, (un)substituted alkyl,aralkyl alkenyl alkynyl, alkoxy, organylthio, silyl, amino, aryl, heterocyclyl; Y1, Y2 = (un)substituted amino, aminoalkyl, aminoaryl, polycyclic aryl, (poly)cyclic hetaryl], useful as efficient and stable electroluminescent light-emitting compds. or dopants for light-emitting materials for fabrication of organic light-emitting devices, were prepared by Suzuki coupling of silylanthracenes (R1R2R3Si)b-XcC14H10-b-c, preferably of 9-(R1R2R3Si)-10-Br-XcC14H8-c with pinacolboranes (CMe2O)2BY1 or (CMe2O)2BY2. Use of compds. 1 in pure form or in the form of dopants for light-emitting materials, such as substituted (oligo)-2,7-diarylfluorenes (4), 9,9'-spirobifluorenes (5), 7-pyrenyl-2-fluoren(organo)amines (6) and polyaryl(alkyl)benzenes (7; Markush formula for 4-7 claimed) allows fabrication of the light-emitting devices having higher efficiency and lifetime. In an example, compound 1, 9-[4-bis(4-methylphenyl)aminophenyl]-10-(trimethylsilyl)anthracene (1a) was prepared in two steps from 9,10-dibromoanthracene by monosilylation followed by Suzuki coupling with 2-[4-[bis(4-methylphenyl)amino]phenyl]-4,4,5,5-tetramethyl-1,3,2- dioxaborolane. In another example, light-emitting device was fabricated including ITO transparent anode, Al/Li cathode, electron-transporting layer, hole-transporting layer and the 20 nm-thick light-emitting layer, composed from 15:85 mixture of the prepared compound 1a and compound of the type 4, 9,9-dibenzyl-2-(6-pentacenyl)-7-(1-pyrenyl)-9H-fluorene (4a), exhibiting luminance of 380 cd/m2 and efficiency of 3.7 lm/W at 4 V voltage.

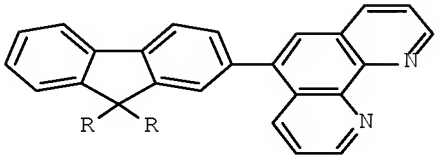
AN 2007:993784 CAPLUS Full-text
DN 147:323125
TI Silyl anthracene amines as components and dopants for efficient and stable light-emitting materials in manufacture of electroluminescent organic light emitting devices
IN Saitoh, Akihito; Yashima, Masataka
PA Canon Kabushiki Kaisha, Japan
SO U.S. Pat. Appl. Publ., 68pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2007205715	A1	20070906	US 2007-677925	20070222
			JP 2006-56958 A	20060302
JP 2007230951	A	20070913	JP 2006-56958	20060302

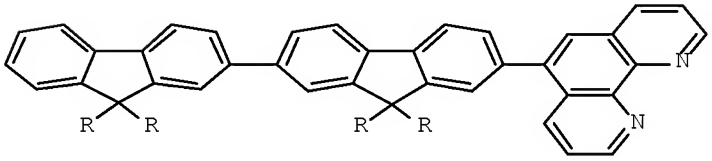
OS MARPAT 147:323125
IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting material; preparation of silyl anthracene arylamino derivs. as electroluminescent components and dopants for manufacturing of organic light-emitting devices of high efficiency and lifetime)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I



II

AB Two new fluorene derivatized 1,10-phenanthroline ligands (I, II; R = hexyl) and their tris-chelate Ru(II) and Zn(II) coordination complexes were synthesized. The linear and nonlinear (two-photon induced fluorescence) photophys. measurements have contributed to highlight the possibility to tune the absorption spectral range and excited lifetime, depending on ligand substitution and nature of the metal. More significantly, the observation of two-photon absorption (TPA) associated with long-lived metal-to-ligand charge-transfer (MLCT) excited states in the Ru(II)-based chromophores, opens a wide range of applications in the near IR.

AN 2007:830097 CAPLUS Full-text

DN 147:397082

TI Novel ruthenium(II) and zinc(II) complexes for two-photon absorption related applications

AU Girardot, C.; Lemercier, G.; Mulatier, J.-C.; Chauvin, J.; Baldeck, P. L.; Andraud, C.

CS Laboratoire de Chimie, CNRS/ENS-Lyon, Lyon, 69364, Fr.

SO Dalton Transactions (2007), (31), 3421-3426
CODEN: DTARAF; ISSN: 1477-9226

PB Royal Society of Chemistry

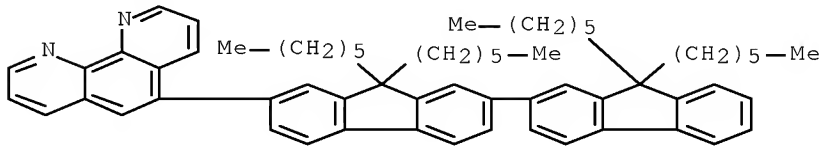
DT Journal

LA English

IT 873096-72-1P 950692-69-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and photophys. properties of ruthenium(II) and zinc(II) (dihexylfluorenyl)phenanthroline and ((dihexylfluorenyl)dihexylfluorenyl)phenanthroline complexes for possible two-photon absorption related applications)

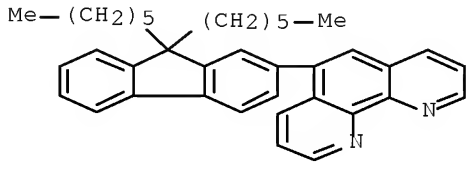
RN 873096-72-1 CAPLUS

CN 1,10-Phenanthroline, 5-(9,9,9',9'-tetrahexyl[2,2'-bi-9H-fluoren]-7-yl)- (CA INDEX NAME)



RN 950692-69-0 CAPLUS

CN 1,10-Phenanthroline, 5-(9,9-dihexyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The subject matter disclosed herein generally relates to org. light-emitting materials A-(L-Og)p (A = a hole-conducting core, an electron-conducting core, or a non-conducting core; L = an aliphatic linker; Og = a conjugated oligomer; p = 1-10) and methods for their preparation and use. Also, devices involve organic light emitting materials are disclosed.

AN 2007:534830 CAPLUS Full-text

DN 146:531624

TI Light-emitting organic materials

IN Chen, Shaw H.; Chen, Andrew Chien-An; Wallace, Jason U.; Zeng, Lichang

PA USA

SO U.S. Pat. Appl. Publ., 90pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

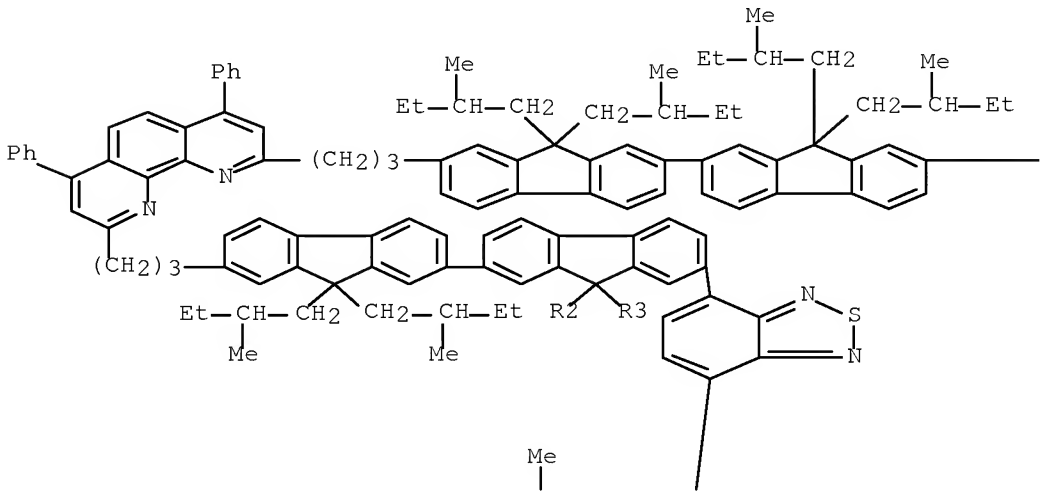
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2007111027	A1	20070517	US 2006-494854	20060728
			US 2005-703908P P	20050729

IT 937009-36-4P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use of light-emitting organic materials)

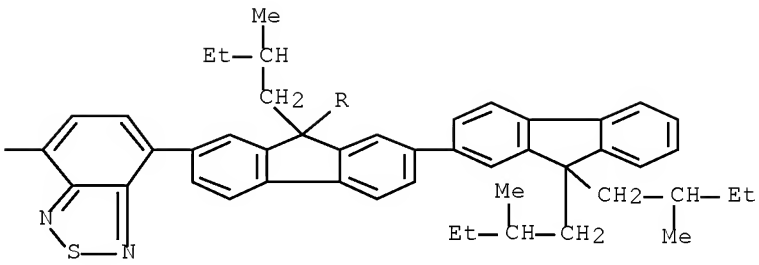
RN 937009-36-4 CAPLUS

CN 1,10-Phenanthroline, 4,7-diphenyl-2,9-bis[3-[9,9,9',9'-tetrakis(2-methylbutyl)-7'-[7-[9,9,9',9'-tetrakis(2-methylbutyl)[2,2'-bi-9H-fluoren]-7-yl]-2,1,3-benzothiadiazol-4-yl][2,2'-bi-9H-fluoren]-7-yl]propyl]- (CA INDEX NAME)

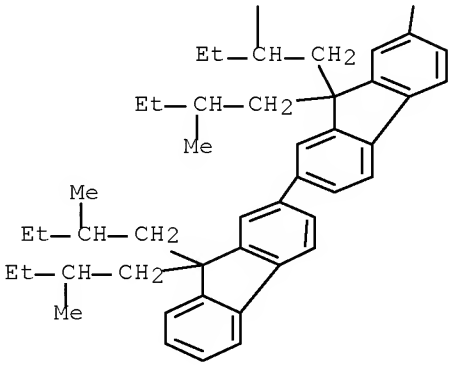
PAGE 1-A



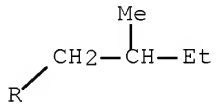
PAGE 1-B

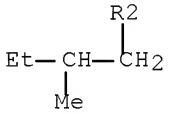


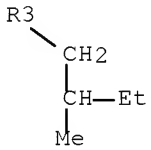
PAGE 2-A



PAGE 3-A







L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

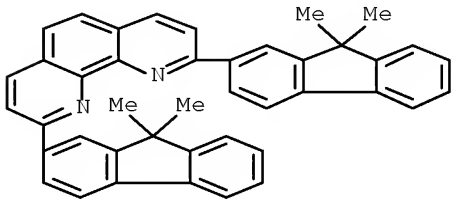
AB The invention relates to an org. light-emitting device, comprising a first active layer and a second active layer fabricated between an anode and a cathode, wherein the HOMO (LUMO) energy level of the main compound in the

first active layer is greater than that of the main compound in the second active layer located at the cathode side and the recombination region spreads in the both active layers, centering the boundary between the first and the second active layer.

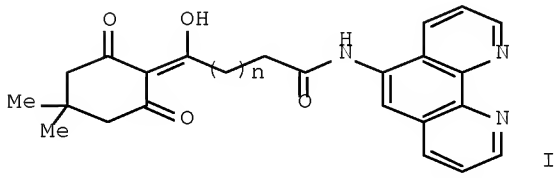
AN 2007:409195 CAPLUS Full-text
DN 146:411169
TI Organic light-emitting device
IN Okinaka, Keiji; Saito, Akito; Yamada, Naoki
PA Canon Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 22pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2007096023	A	20070412	JP 2005-283895	20050929
			JP 2005-283895	20050929

IT 676542-63-5
RL: TEM (Technical or engineered material use); USES (Uses)
(electron transport layer; organic light-emitting device)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

AB The invention relates to a method for solid-phase peptide synthesis using an activated solid phase which is coordinatively and reversibly attached to a peptide-conjugated anchoring part. Claimed peptides have formula P-X-L, where P is the peptidyl part which optionally may comprise further non-peptide moieties or protection groups, X is a linker or amino acid protection group (with the proviso that X is not an amino acid monomer or peptide), and L is a metal chelating group. The group X-L may be further defined as structure I (n = 1-30). Thus, I (n = 7; Tag18) acetate was prepared and coupled to the N-

terminal end of a peptide during solid-phase synthesis. Metal affinity purification and cleavage of the Tag with hydrazine afforded peptide H-STKKTQLQLEHLLLDLQMILNGINN-CO-NH2.

AN 2006:515970 CAPLUS Full-text

DN 145:8474

TI Method for solid-phase peptide synthesis and purification

IN Frank, Hans-Georg; Casaretto, Monika; Knorr, Karsten

PA Lonza A.-G., Switz.; Aplagen G.m.b.H.

SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006056443	A2	20060601	WO 2005-EP12576	20051124
	WO 2006056443	A3	20070405		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
				EP 2004-27817	A 20041124
				EP 2004-27840	A 20041124
				WO 2005-IB675	A 20050316
	EP 1831241	A2	20070912	EP 2005-821714	20051124
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
				EP 2004-27817	A 20041124
				EP 2004-27840	A 20041124
				WO 2005-IB675	A 20050316
				WO 2005-EP12576	W 20051124

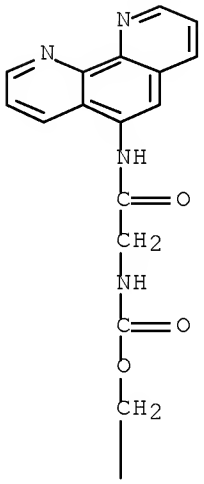
OS MARPAT 145:8474

IT 888315-11-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(solid-phase peptide synthesis and purification)

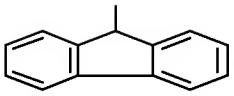
RN 888315-11-5 CAPLUS

CN Carbamic acid, [2-oxo-2-(1,10-phenanthrolin-5-ylamino)ethyl]-, 9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L4 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Two fullerene-substituted m-phenylene-bis-phenanthroline ligands have been prepared The synthesis of the first derivative (L1) is based on an esterification reaction between a Cs sym. cis-2 fullerene bis-adduct bearing a carboxylic acid function and a bis-phenanthroline alc. (5). The second ligand (L2) has been obtained by reaction of a bis-phenanthroline malonate (9) and C60 under Bingel conditions. The copper(I) complexes of L1 and L2 have been prepared by treatment with a slight excess of Cu(CH3CN)4BF4. NMR spectroscopy and mass spectrometry anal. have unambiguously shown that these complexes are bis-copper(I) helicates substituted with two fullerene moieties. The photophys. properties of the copper(I) complexes Cu2(L1)2 and Cu2(L2)2 have been investigated. In both systems photoinduced electron transfer from the central metal-complexed unit to the external fullerenes may occur, in principle, by excitation of both moieties. However, this is found to be the case only for the methanofullerene system Cu2(L2)2. Unexpectedly, for Cu2(L1)2, photoexcitation of the peripheral carbon spheres is followed by regular internal deactivation. Possible reasons for this behavior are examined in light of current theories for photoinduced energy and electron transfer.

AN 2006:115684 CAPLUS Full-text

DN 144:378849

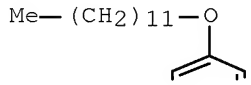
TI Synthesis of fullerohelicates and fine tuning of the photoinduced processes by changing the number of addends on the fullerene subunits

AU Holler, Michel; Cardinali, Francois; Mamlouk, Hind; Nierengarten, Jean-Francois; Gisselbrecht, Jean-Paul; Gross, Maurice; Rio, Yannick; Barigelletti, Francesco; Armaroli, Nicola

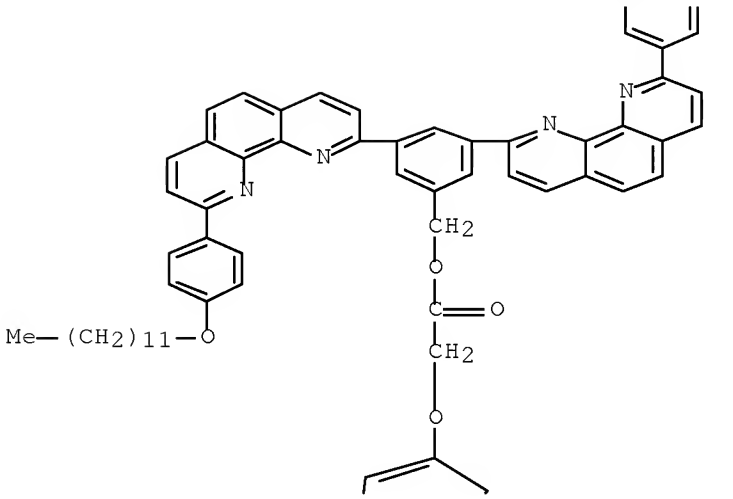
CS Groupe de Chimie des Fullerenes et des Systemes Conjugues, Ecole Europeenne de Chimie, Polymeres et Materiaux, Universite Louis Pasteur et

CNRS, Strasbourg, 67087, Fr.
SO Tetrahedron (2006), 62(9), 2060-2073
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 144:378849
IT 757248-88-7P 881834-16-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ligand; reaction with excess of Cu(CH3CN)4BF4 in CH2Cl2/CH3CN at room temperature)
RN 757248-88-7 CAPLUS
CN 3',3''-(Methanoxymethano[1,3]benzenomethanoxymethano)-3'H,3''H-dicyclopropa[1,9:3,15][5,6]fullerene-C60-Ih-3',3''-dicarboxylic acid, 11'-[2-[[3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-phenanthrolin-2-yl]phenyl]methoxy]-2-oxoethoxy]-4',15'-dioxo-, bis[[3,5-bis(octyloxy)phenyl]methyl] ester (9CI) (CA INDEX NAME)

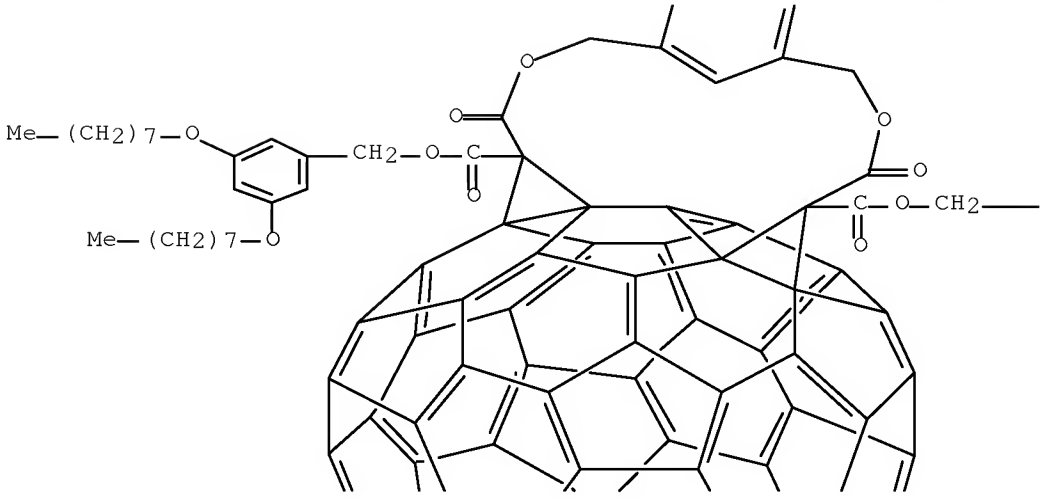
PAGE 1-A



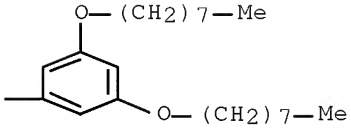
PAGE 2-A



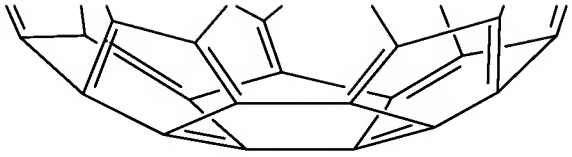
PAGE 3-A



PAGE 3-B

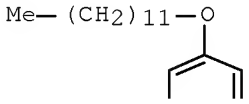


PAGE 4-A

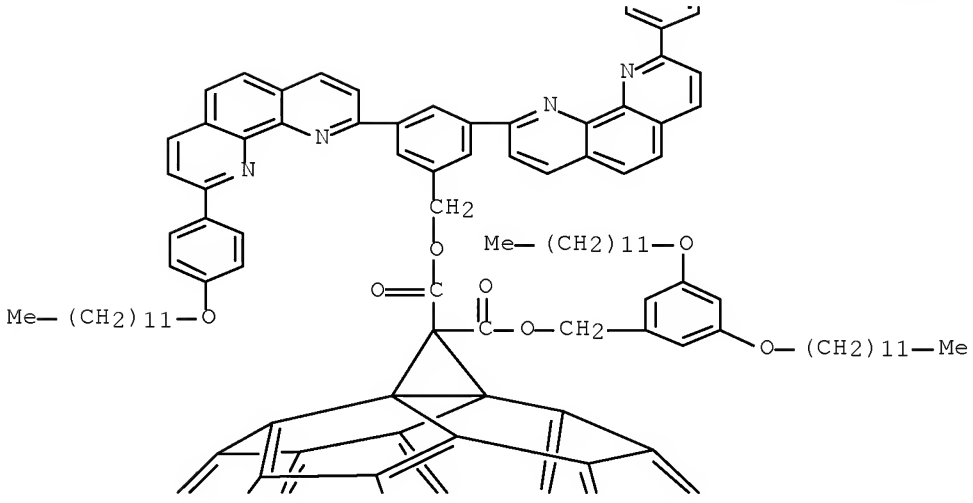


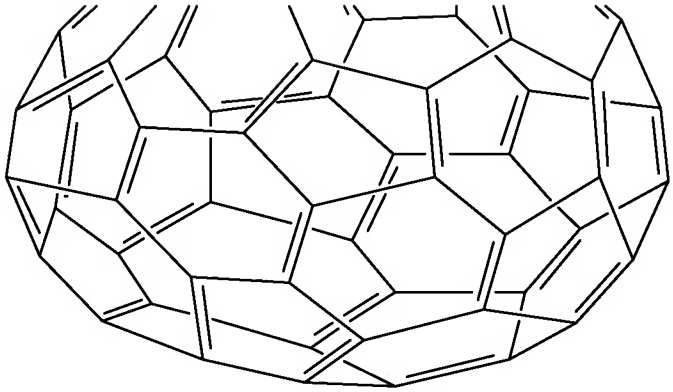
RN 881834-16-8 CAPLUS
CN 3'H-Cyclopropa[1,9][5,6]fullerene-C60-Ih-3',3'-dicarboxylic acid, [3,5-bis(dodecyloxy)phenyl]methyl [3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-phenanthrolin-2-yl]phenyl]methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A





RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB Org. light-emitting devices are described which comprise a pair of electrodes which consist of an anode and a cathode and a plurality of organic layers interposed between the pair of electrodes, where the plurality of organic layers include at least an emission layer and another organic layer which is in contact with an anode-side-interface of the emission layer, and where the emission layer include at least a host material; a light-emitting material; and another material having a smaller ionization potential than and almost the same hole mobility as or a greater hole mobility than an ionization potential and a hole mobility of a compound which constitutes an emission layer-interface-side of the another organic layer.

AN 2006:79380 CAPLUS Full-text

DN 144:138659

TI Organic light-emitting devices employing a modifying material with specific ionization potential and hole mobility in light-emitting layer

IN Okinaka, Keiji; Saitoh, Akihito; Yamada, Naoki; Yashima, Masataka; Suzuki, Koichi; Senoo, Akihiro; Ueno, Kazunori

PA Canon Kabushiki Kaisha, Japan

SO U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

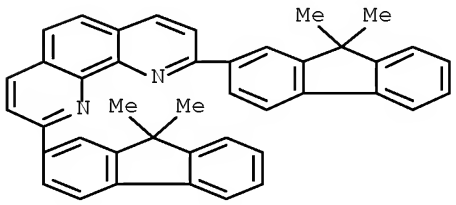
	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI	US 2006017376	A1	20060126	US 2005-175206		20050707
				JP 2004-211231	A	20040720
	JP 2006032757	A	20060202	JP 2004-211231		20040720
	CN 1725918	A	20060125	CN 2005-10086021		20050720
				JP 2004-211231	A	20040720
	KR 2006053917	A	20060522	KR 2005-65611		20050720
	KR 751626	B1	20070822			
				JP 2004-211231	A	20040720

IT 676542-63-5

RL: DEV (Device component use); USES (Uses)
(electron-transporting layer; organic light-emitting devices employing modifying material with specific ionization potential and hole mobility in light-emitting layer)

RN 676542-63-5 CAPLUS

CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB There is no methodol. for the estn. of the dynamic features of large-mol.-weight RNAs in homogeneous physiol. media. In this report, a luminescence anisotropy-based method using a long-lifetime luminescent oligonucleotide probe for the estimation of the dynamic features of large-mol.-weight RNA is described. As a luminescent probe, Ru(II) complex-labeled oligonucleotides, which have a complementary sequence to the single-stranded regions of Escherichia coli 16S rRNA, were synthesized. After the hybridization of the probe to single-stranded regions of 16S rRNA, the segmental motions of the regions were evaluated by time-resolved luminescence anisotropy anal. In 16S rRNA, the L2 site (323-332 nt) was found to be the most flexible among the seven sites chosen. From a comparison between the hybridization kinetics of oligonucleotides to these single-stranded regions and the rotational correlation times, it was suggested that the flexibility of the single-stranded region was closely correlated with the hybridization kinetics. Furthermore, results of the luminescence lifetime measurement and luminescence quenching expts. suggested that the highly flexible region was located on the surface of the 16S rRNA and that the less flexible region was located in the depths of 16S rRNA.

AN 2005:1315115 CAPLUS Full-text

DN 144:186610

TI Evaluation of dynamic features of Escherichia coli 16S ribosomal RNA in homogeneous physiological solution

AU Sakamoto, Takashi; Mahara, Atsushi; Yamagata, Koichi; Iwase, Reiko; Yamaoka, Tetsuji; Murakami, Akira

CS Department of Polymer Science and Engineering, Kyoto Institute of Technology, Sakyo-ku, Kyoto, Japan

SO Biophysical Journal (2005), 89(6), 4122-4128
CODEN: BIOJAU; ISSN: 0006-3495

PB Biophysical Society

DT Journal

LA English

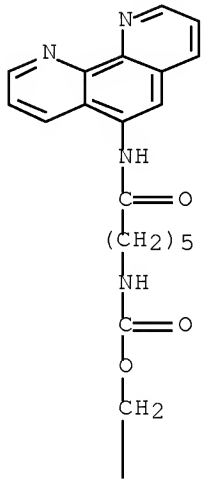
IT 875167-79-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(16S rRNA displays highly flexible loop region located on surface and less flexible loop region located in depths)

RN 875167-79-6 CAPLUS

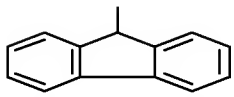
CN Carbamic acid, [6-oxo-6-(1,10-phenanthrolin-5-ylamino)hexyl]-,

9H-fluoren-9-ylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

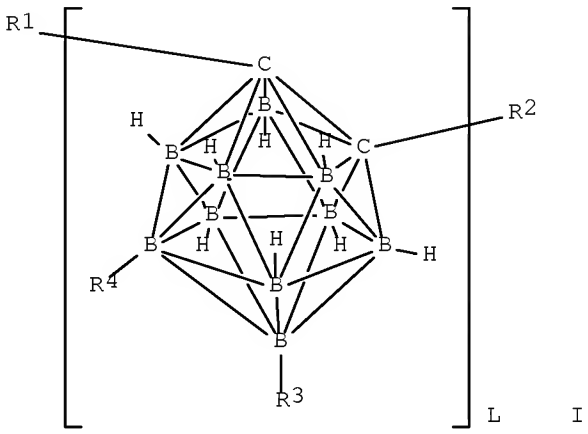


PAGE 2-A



RE.CNT 29   THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4   ANSWER 19 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



L   I

AB The invention refers to an electroluminescent device comprising at least one layer containing carborane compound I [R1-4 = H, (un)substituted alkyl, aryl heterocycle, condensed polycyclic aromatic or condensed polycyclic heterocycle; L = 1 - 20].

AN 2005:546320 CAPLUS Full-text

DN 143:86374

TI Organic electroluminescent device using carborane compound

IN Suzuki, Koichi; Okajima, Aki; Ueno, Kazunori

PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005166574	A	20050623	JP 2003-406967	20031205
			JP 2003-406967	20031205

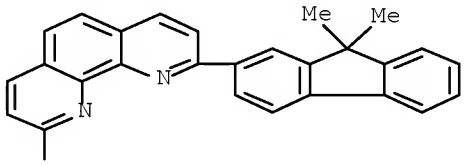
OS MARPAT 143:86374

IT 855312-38-8 855312-50-4
RL: DEV (Device component use); USES (Uses)
(Organic electroluminescent device using carborane compound)

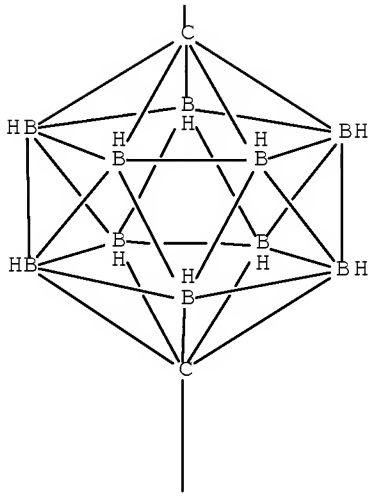
RN 855312-38-8 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(1,12-dicarbadodecaborane(12)-1,12-diyl)bis[9-(9,9-dimethyl-9H-fluoren-2-yl)- (9CI) (CA INDEX NAME)

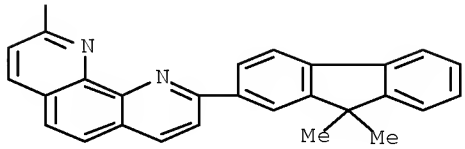
PAGE 1-A



PAGE 2-A

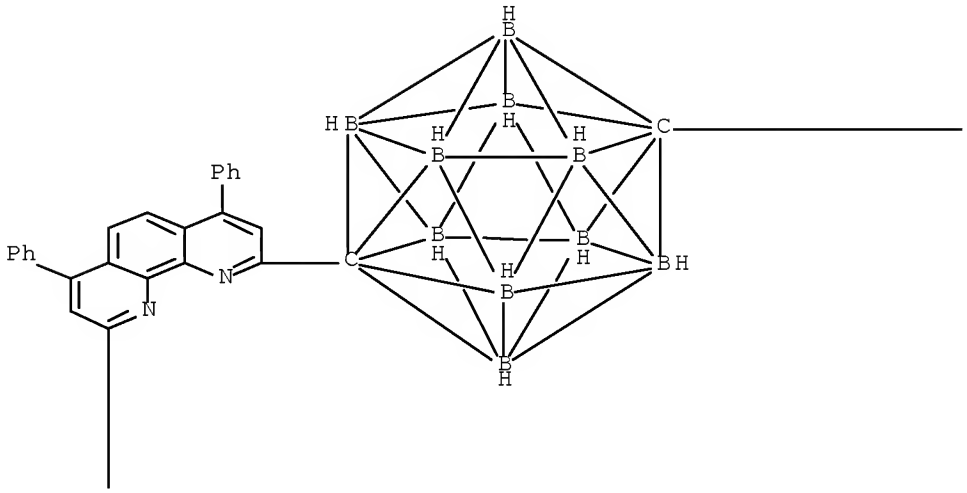


PAGE 3-A

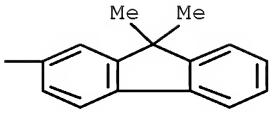


RN 855312-50-4 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis[12-(9,9-dimethyl-9H-fluoren-2-yl)-1,12-dicarbadodecaboran(12)-1-yl]-4,7-diphenyl- (9CI) (CA INDEX NAME)

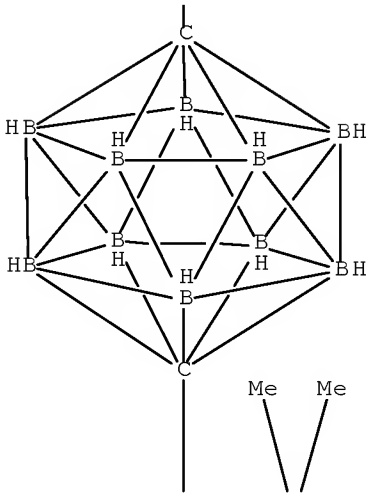
PAGE 1-A



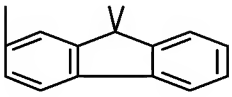
PAGE 1-B



PAGE 2-A



PAGE 3-A



L4 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

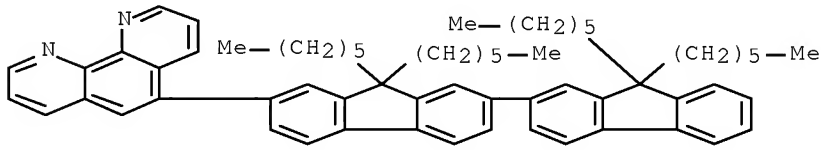
AB The nonlinear absorption properties are reported of different coordination compds. (M = Eu, Zn), based on the bifluorene system. Measurements were performed in CHCl3 at 450-650 nm for ns time duration pulses. The nonlinear absorption is attributed to a 3-photon absorption process involving a 1st 2-photon absorption step followed by an excited state absorption process. The 3-photon absorption efficiency of these complexes is similar to that of the bifluorene for a same concentration in bifluorene, with also an excellent thermal stability.

AN 2005:404793 CAPLUS Full-text
DN 144:159498

TI Polyfluorene based coordination compounds for nonlinear absorption

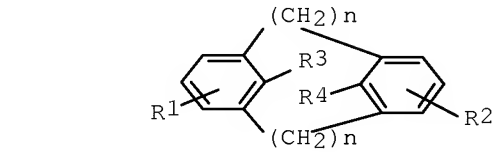
AU Girardot, Camille; Lemercier, Gilles; Andraud, Chantal; Amari, Nadia; Baldeck, Patrice L.

CS Ecole Normale Superieure de Lyon, Laboratoire de Chimie, Lyon, Fr.
SO Molecular Crystals and Liquid Crystals (2005), 426, 197-204
CODEN: MCLCD8; ISSN: 1542-1406
PB Taylor & Francis, Inc.
DT Journal
LA English
IT 873096-72-1
RL: PRP (Properties)
(nonlinear optical absorption of)
RN 873096-72-1 CAPLUS
CN 1,10-Phenanthroline, 5-(9,9,9',9'-tetrahexyl[2,2'-bi-9H-fluoren]-7-yl)-
(CA INDEX NAME)

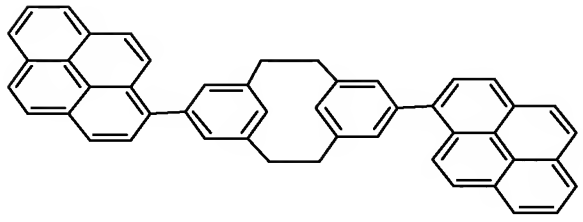


RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I



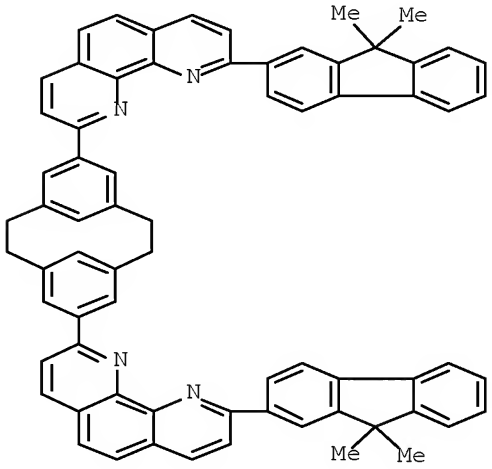
II

AB The metacyclophanes are I (R1-R4 = H, alkyl, alkoxy, aryl, etc.; R1 and/or R2 = aryl, heterocyclic group, condensed polycyclic aromatic group, condensed polycyclic heterocyclic group, substituted amino, substituted alkenyl, substituted boryl; n = 2-4). Thus, an organic electroluminescent device having an emitter layer containing coumarin and pyrenyl-containing metacyclophane II is exemplified.
AN 2005:365458 CAPLUS Full-text
DN 142:419729
TI Metacyclophanes, and their organic electroluminescent devices showing high luminescence efficiency and intensity
IN Okajima, Maki; Suzuki, Koichi; Ueno, Kazunori
PA Canon Inc., Japan

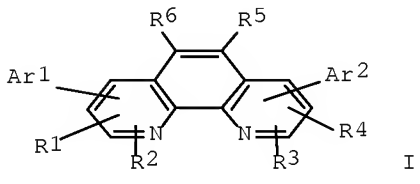
SO Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005112784	A	20050428	JP 2003-349216	20031008
JP 4035499	B2	20080123		
			JP 2003-349216	20031008

OS MARPAT 142:419729
IT 850232-48-3
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(metacyclophanes for organic electroluminescent devices showing high luminescence efficiency and intensity)
RN 850232-48-3 CAPLUS
CN 1,10-Phenanthroline, 2,2'-tricyclo[9.3.1.14,8]hexadeca-1(15),4,6,8(16),11,13-hexaene-6,13-diylbis[9-(9,9-dimethyl-9H-fluoren-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



I

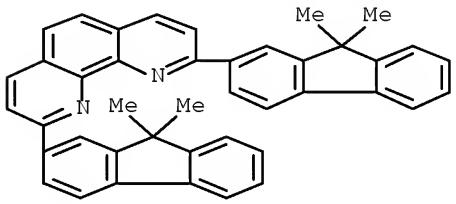
AB Light-emitting devices comprising ≥1 org. compd. layer sandwiched between a pair of electrodes are described in which the organic compound layer in contact with the cathode contains a phenanthroline compound decribed by the

general formula I (R1-6 = independently selected hydrogen, alkyl, (un)substituted aralkyl, (un)substituted aryl, (un)substituted heterocyclic, and halo atom; and Ar1 and Ar2 = independently selected (un)substituted condensed polycyclic aromatic or condensed polyheterocyclic groups) and a carbonate. The cathode may comprise In Sn oxide or ≥1 of Ag, Au, and Al. The inventors suggest that it is the higher glass transition temps. of the materials used relative to those of conventional materials that is responsible for the increase in lifetime of devices fabricated using them relative to conventional devices.

AN 2004:965575 CAPLUS Full-text
DN 141:403314
TI Light-emitting devices with organic layers containing phenanthroline derivatives and carbonates
IN Hasegawa, Toshinori; Suzuki, Koichi; Okajima, Maki; Kimura, Toshihide
PA Canon Kabushiki Kaisha, Japan
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

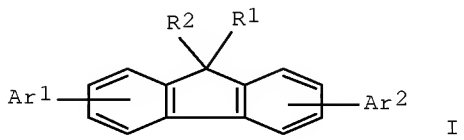
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004098242	A1	20041111	WO 2004-JP5556	20040419
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			JP 2003-125447 A	20030430
JP 2004335143	A	20041125	JP 2003-125447	20030430
JP 3890317	B2	20070307		
TW 228385	B	20050221	TW 2004-93111642	20040426
			JP 2003-125447 A	20030430

OS MARPAT 141:403314
IT 676542-63-5
RL: DEV (Device component use); USES (Uses)
(light-emitting devices with organic layers containing phenanthroline derivs.
with polycyclic substituents and carbonates)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI

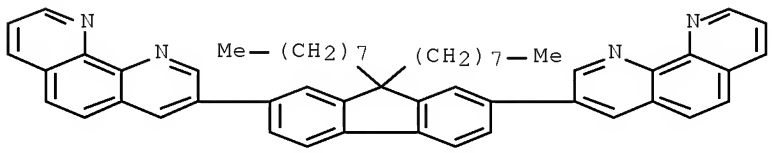


I

AB The fluorenes are I (R1, R2 = H, halo, alkyl, etc.; Ar1, Ar2 = N-contg. heterocyclic group; benzene ring may have substituents other than the heterocyclic group). Organic electroluminescent devices using I are capable of operating at low voltage for a long time.
AN 2004:823203 CAPLUS Full-text
DN 141:304070
TI Fluorenes as electron transporters and electroluminescent materials for organic electroluminescent devices
IN Kido, Junji; Sesha Sainth, Anadana Venkata; Sato, Yoshiharu
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004277377	A	20041007	JP 2003-74088	20030318
			JP 2003-74088	20030318

OS MARPAT 141:304070
IT 763106-31-6P
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorenes as electron transporters and electroluminescent materials for organic electroluminescent devices)
RN 763106-31-6 CAPLUS
CN 1,10-Phenanthroline, 3,3'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis- (CA INDEX NAME)



L4 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
AB The invention relates to an org. electroluminescent device comprising a hole transporting layer, a light-emitting layer, and an electron transporting layer

sandwiched between a anode and a cathode, wherein the light emitting layer is composed of a guest material doped layer and a nondoped layer.

AN 2004:741993 CAPLUS Full-text

DN 141:251204

TI Organic electroluminescent device

IN Asahi, Noboru; Fujimori, Shigeo; Nishiyama, Takuya

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

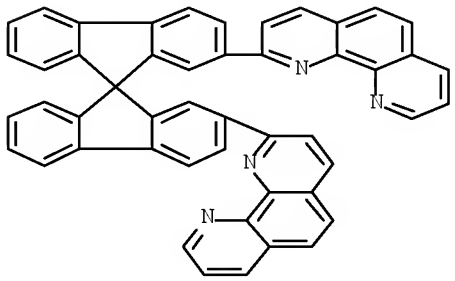
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004253373	A	20040909	JP 2004-12855	20040121
			JP 2003-17084 A	20030127

IT 252878-73-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device)

RN 252878-73-2 CAPLUS

CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)

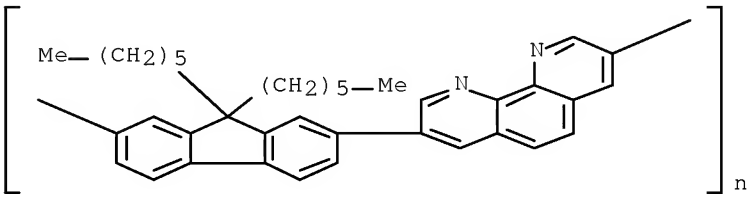


L4 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

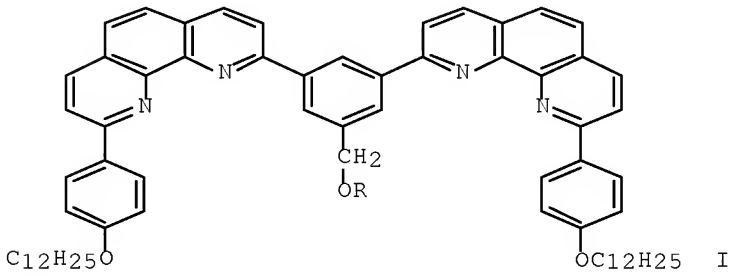
AB The effects of the rigidity of mol. recognition sites in fluorene-based conjugated polymers P1 and P2 in solution on metal ion sensing have been investigated. The structures of polymer P1 and P2 have twisted 2,2'-bipyridine and planar 1, 10-phenanthroline units, resp., which alternate with one fluorene monomer unit. It is found that absorption and emission bands of 1,10-phenanthroline-based polymer P2 exposed to metal ions can be red-shifted up to 30 nm, and emission intensity can be quenched up to 100%, depending on metal ions present, which is very similar to the behavior of 2, 2'-bipyridine-based analog P1. And P2 shows much higher sensitivity to metal ion than that of P1. The origins of effects of 2,2'-bipyridine-based conjugated polymer due to the metal ion chelation have been attributed to both conformational changes and electron d. variations on the polymer chains caused by introducing pos. charged metal ions. Based on the fact that conformational changes are not required in the ion responsive process of phen ion-recognition unit, we demonstrate that the electron d. variations play more important roles in metal ion induced red shifts in absorption and fluorescence quenching in photoluminescence. The higher sensitivity of P2. films to metal ions compared with P1 suggest the use of rigid units as mol. recognition.sites in the fluorescent ions-sensory conjugated polymer for achieving higher sensing sensitivity, which is also significant for studying the nature of ion-chromatic effect of conjugated polymer. The study present herein has, to a

certain degree, elucidated the nature of metal ion and polymer interactions and demonstrated a new approach to improve the metal ions sensing properties of conjugated polymer.

AN 2004:703154 CAPLUS Full-text
DN 142:347523
TI Study of the fluorescence conjugated polymers on metal ion sensing
AU Zhang, Ming; Lu, Ping; Tian, Lei-Lei; Zhang, Wu; Yang, Bing; Ma, Ya-Guang
CS Key Laboratory for Supramolecular Structure and Materials of Education, Jilin University, Changchun, 130012, Peop. Rep. China
SO Wuli Huaxue Xuebao (2004), 20(Spec. Issue), 924-939
CODEN: WHXUEU; ISSN: 1000-6818
PB Wuli Huaxue Xuebao Bianjibu
DT Journal
LA Chinese
IT 575433-07-7
RL: DEV (Device component use); USES (Uses)
(fluorescence of conjugated polymers on metal ion sensing)
RN 575433-07-7 CAPLUS
CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



L4 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI

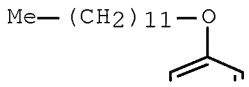


I

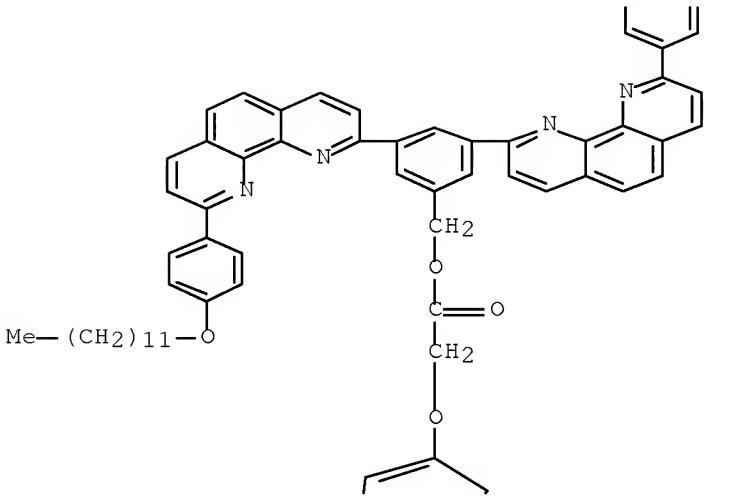
AB A multicomponent array [Cu2L2](BF4)2 (L = I, R = C60 fullerene deriv.) made of a dicopper(I) m-phenylenebis(phenanthroline) helicate core and two peripheral fullerene subunits was prepared and its photophys. properties studied. Electron transfer from the photoexcited Cu(I)-complexed unit to C60 occurs.

AN 2004:581935 CAPLUS Full-text
DN 141:288029
TI Fullerohelicates: a new class of fullerene-containing supermolecules

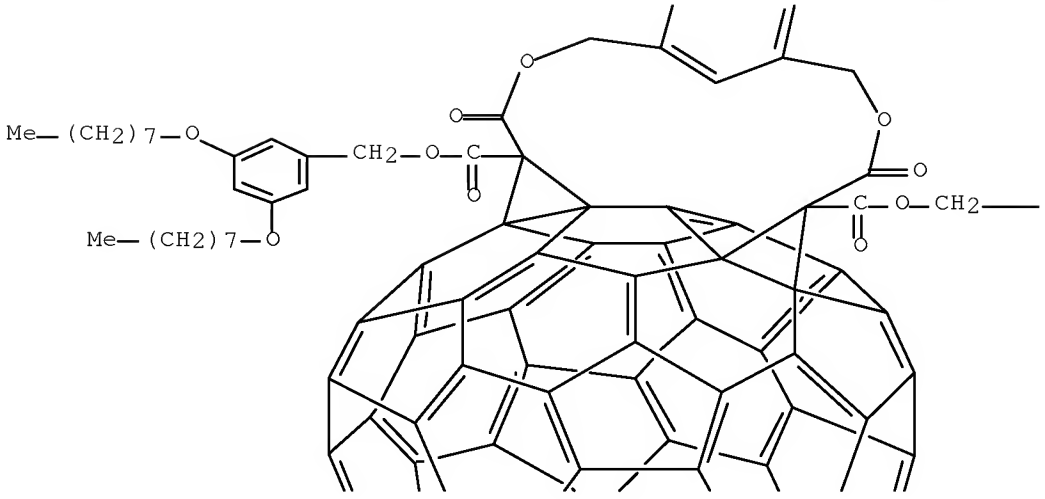
AU Cardinali, Francois; Mamlouk, Hind; Rio, Yannick; Armaroli, Nicola; Nierengarten, Jean-Francois
CS Ecole Europeenne de Chimie, Polymeres et Materiaux (ECPM), Groupe de Chimie des Fullerenes et des Systemes Conjugues, Universite Louis Pasteur et CNRS (UMR 7504), Strabourg, 67087, Fr.
SO Chemical Communications (Cambridge, United Kingdom) (2004), (14), 1582-1583
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 141:288029
IT 757248-88-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and complexation with copper(I) to give dicopper(I) fullerohelicate)
RN 757248-88-7 CAPLUS
CN 3',3''-(Methanoxymethano[1,3]benzenomethanoxymethano)-3'H,3''H-dicyclopropa[1,9:3,15][5,6]fullerene-C60-Ih-3',3''-dicarboxylic acid, 11'-[2-[[3,5-bis[9-[4-(dodecyloxy)phenyl]-1,10-phenanthrolin-2-yl]phenyl]methoxy]-2-oxoethoxy]-4',15'-dioxo-, bis[[3,5-bis(octyloxy)phenyl]methyl] ester (9CI) (CA INDEX NAME)



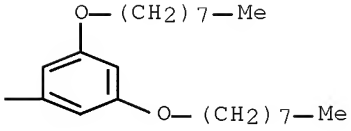
PAGE 2-A

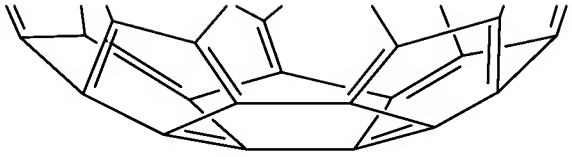


PAGE 3-A



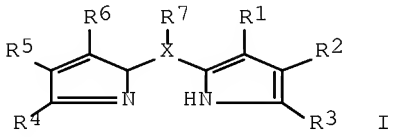
PAGE 3-B





RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI



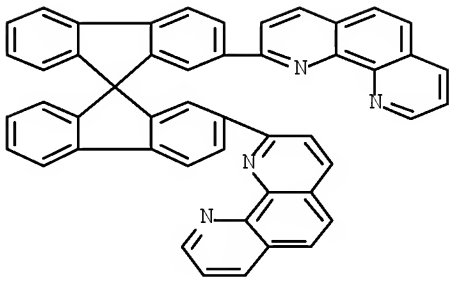
I

AB The invention relates to an electroluminescent device, suited for use in making a white light-emitting device, comprising an electroluminescent layer containing a pyrromethene compound or its metal complex, represented by I [R1-7 = H, alkyl, cycloalkyl, etc.; X = N and C, when X = N, then R7 = null], and an electron transporting layer having the ionization potential ≥ 5.8 eV. The metal forming the complex with the pyrromethene compound I is selected from B, Be, Mg,Cr, Fe, Co, Ni, Cu, Zn, and Pt.

AN 2004:569278 CAPLUS Full-text
DN 141:131039
TI Electroluminescent device
IN Murase, Seiichiro; Tominaga, Takeshi; Kitazawa, Daisuke
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 53 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 2004200162	A	20040715	JP 2003-407179		20031205
			JP 2002-353461	A	20021205

OS MARPAT 141:131039
IT 252878-73-2
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electron transporting material; organic electroluminescent device)
RN 252878-73-2 CAPLUS
CN 1,10-Phenanthroline, 2,2'-(9,9'-spirobi[9H-fluorene]-2,2'-diyl)bis- (CA INDEX NAME)



L4 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN

AB The fluorescence quenching effect of the conjugated polymers P1 and P2 (the mol. recognitions are twisted 2,2'-bipyridine (bpy) and planar 1,10-phenanthroline (phen), resp.) films upon the addition of metal ions was studied. And P2 exhibited stronger fluorescence quenching ability upon the addition of both transition metal ions and main group metal ions compared with that of P1. The 20° twist angle between the two consecutive pyridine rings of bpy unit in the P1 main chain is the reason for the weaker fluorescence quenching ability compared with P2, in which the planar phen unit can chelate with metal ions relatively freely without the conformational transition. So P2 is a kind of material with better properties for solid film devices, such as sensors for metal ions recognition.

AN 2004:318909 CAPLUS Full-text

DN 142:64346

TI Fluorescence quenching effect of metal ions for α,α'-diamine containing conjugated polymers in solid films

AU Tian, Leilei; Zhang, Ming; Lu, Ping; Zhang, Wu; Yang, Bing; Ma, Yuguang

CS Key Lab of Supramolecular Structure and Materials of Ministry of Education, Jilin University, Changchun, 130023, Peop. Rep. China

SO Chinese Science Bulletin (2004), 49(3), 246-248
CODEN: CSBUEF; ISSN: 1001-6538

PB Science in China Press

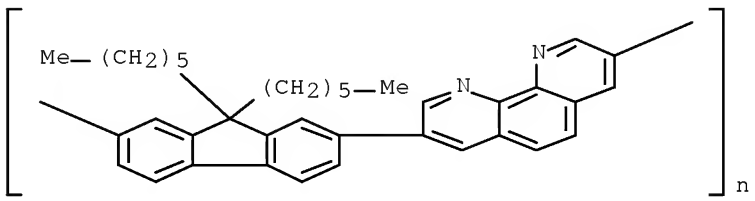
DT Journal

LA English

IT 575433-07-7
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(fluorescence quenching effect of metal ions for α,α'-diamine containing conjugated polymers in solid films)

RN 575433-07-7 CAPLUS

CN Poly[1,10-phenanthroline-3,8-diyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2008 ACS on STN
GI

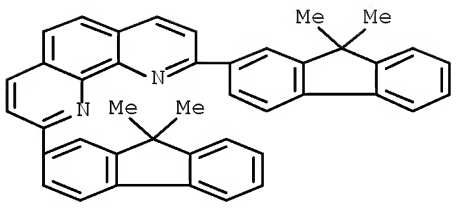
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Phenanthroline derivs. are described by the general formulas I, II, and III (R1-16 = independently selected H, (un)substituted alkyl, (un)substituted aralkyl, (un)substituted aryl, (un)substituted heterocyclic, and halo atom; Ar1-8 = independently selected (un)substituted fluorenyl, (un)substituted fluoranthenyl, (un)substituted perylenyl, and (un)substituted carbazolyl). Organic light-emitting devices using the phenanthroline derivs. (e.g., as an electron-transporting layer or a light-emitting layer) are also described.

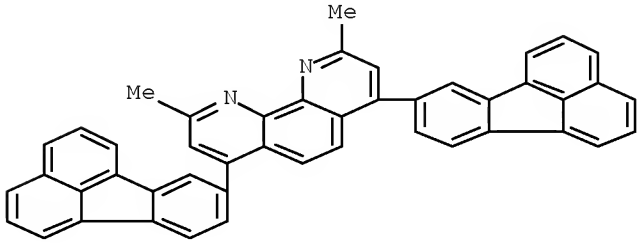
AN 2004:267333 CAPLUS Full-text
DN 140:311707
TI Phenanthroline compound and organic light emitting device using same
IN Okajima, Maki; Kawai, Tatsundo; Takiguchi, Takao; Suzuki, Koichi; Senoo, Akihiro; Hasegawa, Toshinori; Okinaka, Keiji
PA Canon Kabushiki Kaisha, Japan
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
PI WO 2004026870	A1	20040401	WO 2003-JP11485		20030909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
			JP 2002-272408	A	20020919
JP 2004107263	A	20040408	JP 2002-272408		20020919
AU 2003260955	A1	20040408	AU 2003-260955		20030909
			JP 2002-272408	A	20020919
			WO 2003-JP11485	W	20030909
US 2006097227	A1	20060511	US 2005-527192		20050310
			JP 2002-272408	A	20020919
			WO 2003-JP11485	W	20030909

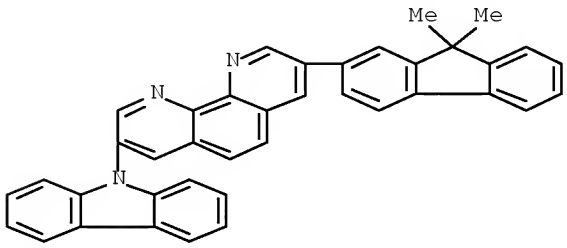
OS MARPAT 140:311707
IT 676542-63-5 676542-64-6 676542-66-8
676542-67-9 676542-69-1 676542-70-4
676542-73-7 676542-74-8 676542-75-9
676542-77-1 676542-78-2 676542-79-3
676542-83-9 676542-87-3
RL: DEV (Device component use); USES (Uses)
(phenanthroline derivs. and organic light-emitting devices using them)
RN 676542-63-5 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



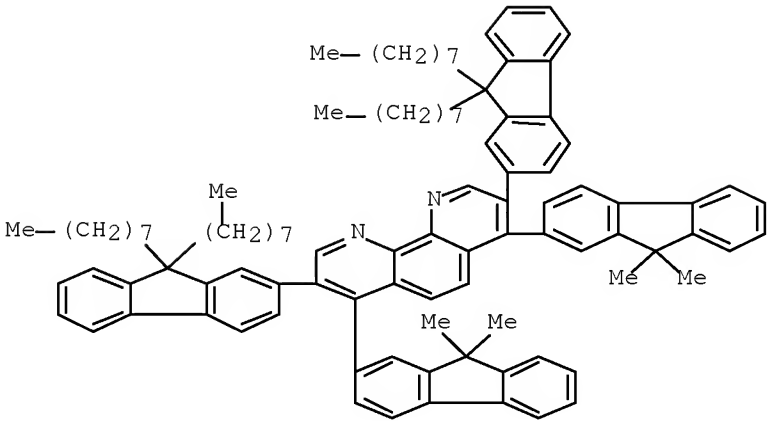
RN 676542-64-6 CAPLUS
CN 1,10-Phenanthroline, 4,7-bis(8-fluoranthenyl)-2,9-dimethyl- (9CI) (CA INDEX NAME)



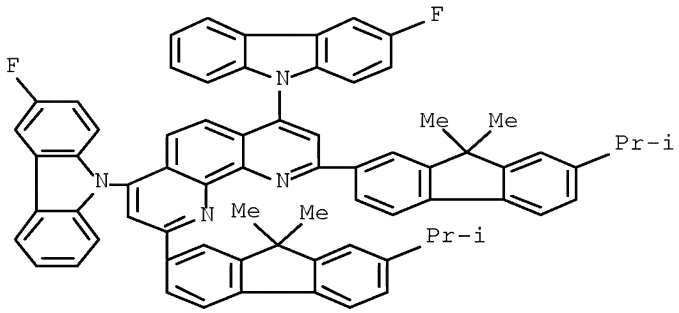
RN 676542-66-8 CAPLUS
CN 1,10-Phenanthroline, 3-(9H-carbazol-9-yl)-8-(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



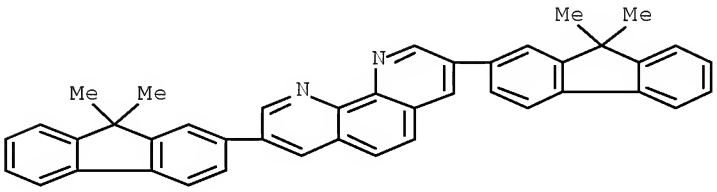
RN 676542-67-9 CAPLUS
CN 1,10-Phenanthroline, 4,7-bis(9,9-dimethyl-9H-fluoren-2-yl)-3,8-bis(9,9-dioctyl-9H-fluoren-2-yl)- (CA INDEX NAME)



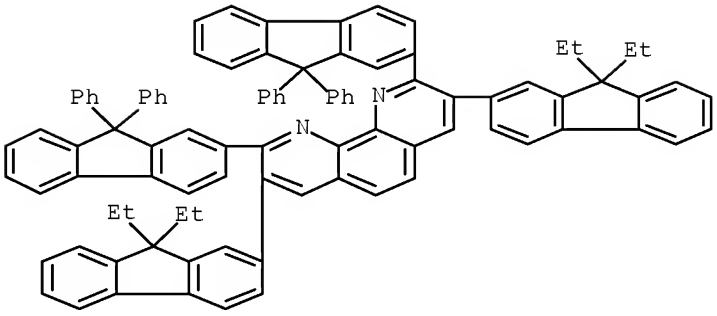
RN 676542-69-1 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis[9,9-dimethyl-7-(1-methylethyl)-9H-fluoren-2-yl]-4,7-bis(3-fluoro-9H-carbazol-9-yl)- (CA INDEX NAME)



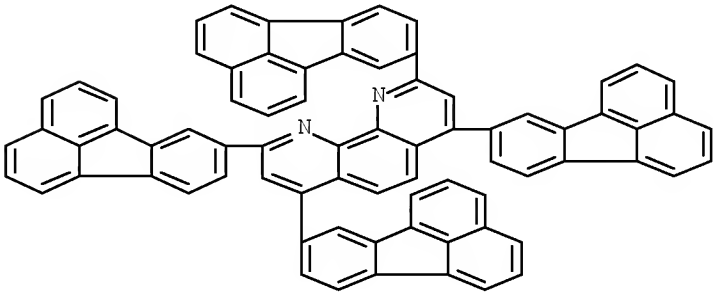
RN 676542-70-4 CAPLUS
CN 1,10-Phenanthroline, 3,8-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



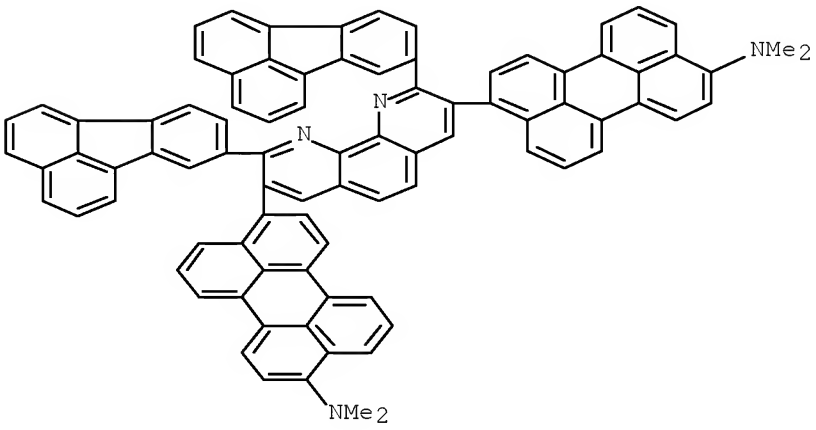
RN 676542-73-7 CAPLUS
CN 1,10-Phenanthroline, 3,8-bis(9,9-diethyl-9H-fluoren-2-yl)-2,9-bis(9,9-diphenyl-9H-fluoren-2-yl)- (CA INDEX NAME)



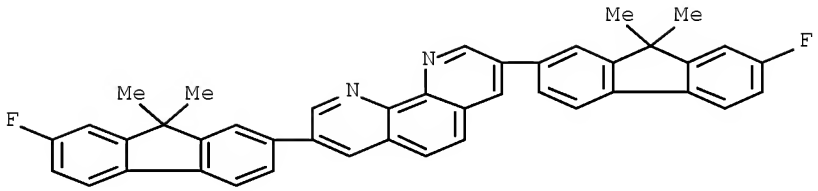
RN 676542-74-8 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetrakis(8-fluoranthenyl)- (9CI) (CA INDEX NAME)



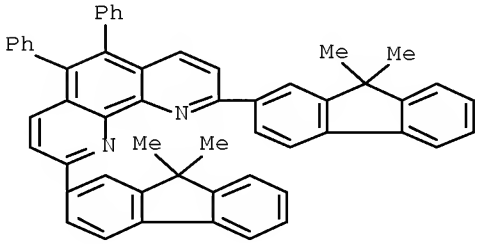
RN 676542-75-9 CAPLUS
CN 3-Perylenamine, 9,9'-(2,9-di-8-fluoranthenyl-1,10-phenanthroline-3,8-diyl)bis[N,N-dimethyl- (9CI) (CA INDEX NAME)



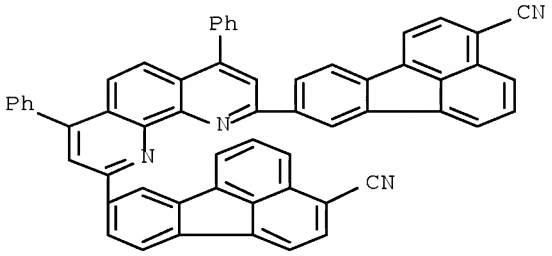
RN 676542-77-1 CAPLUS
CN 1,10-Phenanthroline, 3,8-bis(7-fluoro-9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



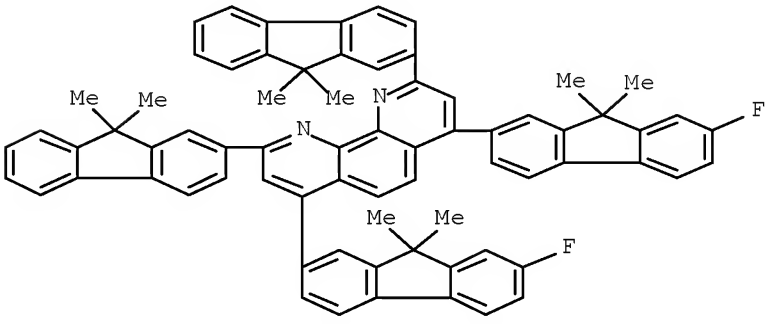
RN 676542-78-2 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-5,6-diphenyl- (CA INDEX NAME)



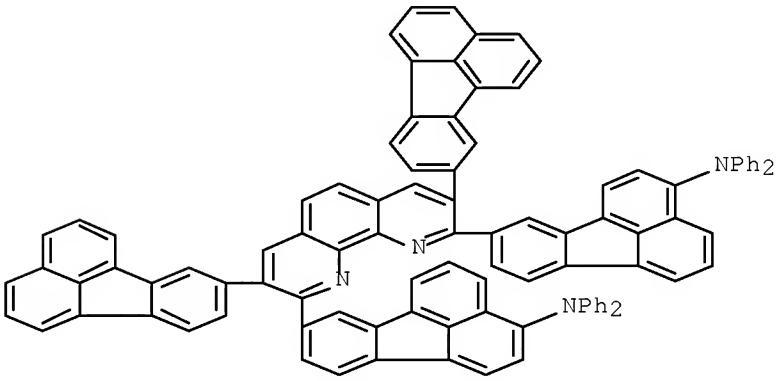
RN 676542-79-3 CAPLUS
CN 3-Fluoranthenecarbonitrile, 8,8'-(4,7-diphenyl-1,10-phenanthroline-2,9-diyl)bis- (CA INDEX NAME)



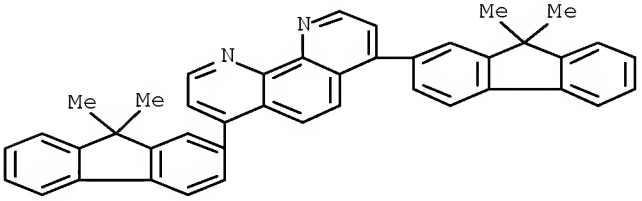
RN 676542-83-9 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-bis(7-fluoro-9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



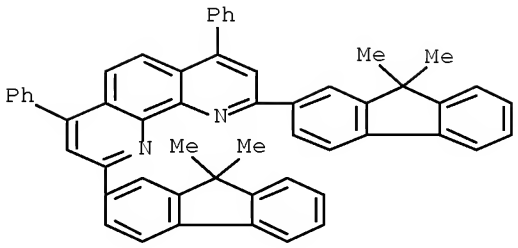
RN 676542-87-3 CAPLUS
CN 3-Fluoranthenamine, 8-[9-[4-(diphenylamino)-8-fluoranthenyl]-3,8-bis(8-fluoranthenyl)-1,10-phenanthrolin-2-yl]-N,N-diphenyl- (9CI) (CA INDEX NAME)



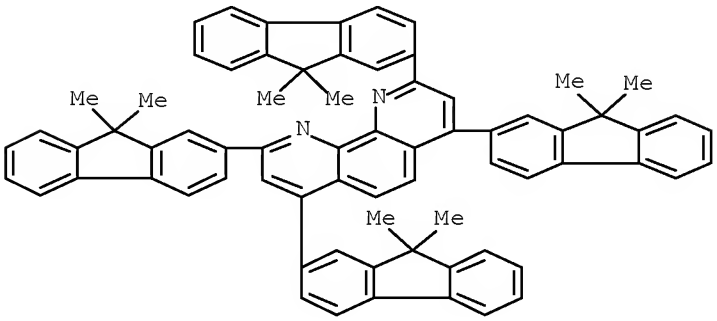
IT 676542-60-2P
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(phenanthroline derivs. and organic light-emitting devices using them)
RN 676542-60-2 CAPLUS
CN 1,10-Phenanthroline, 4,7-bis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



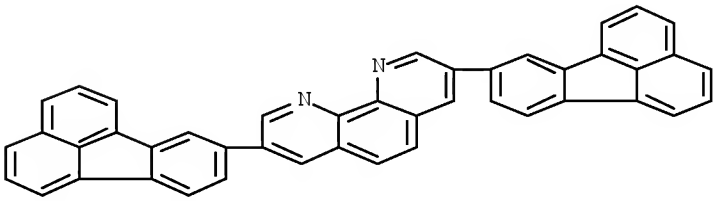
IT 676542-59-9P 676542-61-3P 676542-62-4P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(phenanthroline derivs. and organic light-emitting devices using them)
RN 676542-59-9 CAPLUS
CN 1,10-Phenanthroline, 2,9-bis(9,9-dimethyl-9H-fluoren-2-yl)-4,7-diphenyl- (CA INDEX NAME)



RN 676542-61-3 CAPLUS
CN 1,10-Phenanthroline, 2,4,7,9-tetrakis(9,9-dimethyl-9H-fluoren-2-yl)- (CA INDEX NAME)



RN 676542-62-4 CAPLUS
CN 1,10-Phenanthroline, 3,8-bis(8-fluoranthenyl)- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	253.57	432.14

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-35.20	-35.20

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